STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 171757

TO:	From:
Ralph J Gitomer Location: REM-3C18 Art Unit: 1655 Monday, December 05, 2005 Case Serial Number: 10/658609	Alex Waclawiw Location: Biotech-Chem Library Rem 1A71 Phone: 272-2534 Alexandra.waclawiw@uspto.gov

Search Notes

FOR OFFICIAL USE ONLY 11757

ACCESS DB # _____

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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: R Gitomer Examiner # : 69630 Date: 11/16/05

Art Unit: 1655 Phone Number: 2- Serial Number: 10/658, 609

Location (Bldg/Room#): _____ (Mailbox #): _____ Results Format Preferred (circle): PAPER DISK

****

3C18

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Date: _____

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

****

STAFF USE ONLY

Point of Contact:
Alexandra Waclawiw
Technical Info. Specialist
CM1 6A02 Tel 308-4491

Searcher: _____

Searcher Phone #: _____

Searcher Location: _____

Date Searcher Picked Up: 12-1

Date Completed: 12-5

Searcher Prep & Review Time: 12

Online Time: 56

Type of Search

_____ NA Sequence (#)

_____ AA Sequence (#)

_____ Structure (#)

✓ Bibliographic

_____ Litigation

_____ Fulltext

_____ Other

Vendors and cost where applicable

363 ✓ STN _____ Dialog

_____ Questel/Orbit _____ Lexis/Nexis

_____ Westlaw _____ WWW/Internet

___ In-house sequence systems

___ Commercial ___ Oligomer ___ Score/Length

___ Interference ___ SPDI ___ Encode/Transl

_____ Other (specify)

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=> d his ful

     FILE 'REGISTRY' ENTERED AT 10:07:48 ON 05 DEC 2005
                  E SILVER/CN
L1                1 SEA ABB=ON  PLU=ON  SILVER/CN
                  E GOLD/CN
L2                1 SEA ABB=ON  PLU=ON  GOLD/CN
                  E IRON/CN
L3                1 SEA ABB=ON  PLU=ON  IRON/CN
                  E MERCURY/CN
L4                1 SEA ABB=ON  PLU=ON  MERCURY/CN
                  E NICKEL/CN
L5                1 SEA ABB=ON  PLU=ON  NICKEL/CN
                  E COPPER/CN
L6                1 SEA ABB=ON  PLU=ON  COPPER/CN
                  E PLATINUM/CN
L7                1 SEA ABB=ON  PLU=ON  PLATINUM/CN
                  E PALLADIUM/CN
L8                1 SEA ABB=ON  PLU=ON  PALLADIUM/CN
                  E COBALT/CN
L9                1 SEA ABB=ON  PLU=ON  COBALT/CN
                  E IRIDIUM/CN
L10               1 SEA ABB=ON  PLU=ON  IRIDIUM/CN
L11              10 SEA ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5 OR L6 OR L7 OR
                  L8 OR L9 OR L10)
                  SAVE L11 TEMP METALS/A

     FILE 'CAPLUS' ENTERED AT 10:08:59 ON 05 DEC 2005
L12         1396141 SEA ABB=ON  PLU=ON  L11
L13          555952 SEA ABB=ON  PLU=ON  L12 (L) (ARG OR ANST OR USES)/RL
L14             216 SEA ABB=ON  PLU=ON  (ENZYM? (S)ALTER?(S) METAL#)/BI
L15              48 SEA ABB=ON  PLU=ON  (ENZYM? (L)ALTER?(L) METAL#)/OBI
L16             217 SEA ABB=ON  PLU=ON  L14 OR L15
L17              15 SEA ABB=ON  PLU=ON  (ENZYM? (L)DEPOSIT?(L) METAL#)/OBI
L18              46 SEA ABB=ON  PLU=ON  (ENZYM? (S)DEPOSIT?(S) METAL#)/BI
L19              47 SEA ABB=ON  PLU=ON  L17 OR L18
L20              16 SEA ABB=ON  PLU=ON  L19 AND L13
L21               2 SEA ABB=ON  PLU=ON  L16 AND L13
L22              17 SEA ABB=ON  PLU=ON  (L20 OR L21)
L23            1312 SEA ABB=ON  PLU=ON  (HER 2 NEU)/BI
L24               6 SEA ABB=ON  PLU=ON  L23 AND L13

  FILE 'REGISTRY' ENTERED AT 10:15:12 ON 05 DEC 2005

L25               1 SEA ABB=ON  PLU=ON  PEROXIDASE/CN
                  E HYDROGEN PEROXIDE/CN
L26               1 SEA ABB=ON  PLU=ON  "HYDROGEN PEROXIDE"/CN
                  E HYDROQUINONE/CN
L27               1 SEA ABB=ON  PLU=ON  HYDROQUINONE/CN

     FILE 'CAPLUS' ENTERED AT 10:16:23 ON 05 DEC 2005
L28           58320 SEA ABB=ON  PLU=ON  L25 OR PEROXIDASE/OBI
L29           99222 SEA ABB=ON  PLU=ON  L26 OR HYDROGEN PEROXIDE/OBI
L30           28855 SEA ABB=ON  PLU=ON  L27 OR HYDROQUINONE/OBI
L31             107 SEA ABB=ON  PLU=ON  L28 AND L29 AND L30
L32              10 SEA ABB=ON  PLU=ON  L31 AND L13
L33          539677 SEA ABB=ON  PLU=ON  ENZYM?/OBI
L34               5 SEA ABB=ON  PLU=ON  L32 AND L33
                  D SCAN TI
L35           96721 SEA ABB=ON  PLU=ON  PROBE#/OBI
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L36      141986 SEA ABB=ON  PLU=ON  NUCLEIC ACID/OBI
L37       28293 SEA ABB=ON  PLU=ON  L35 (L) L36
                E PROBES/CT
L38       24165 SEA ABB=ON  PLU=ON  "PROBES (NUCLEIC ACID)"/CT
L39       24165 SEA ABB=ON  PLU=ON  L38 AND L37
L40          11 SEA ABB=ON  PLU=ON  L39 AND L23
                D SCA TI
L41           3 SEA ABB=ON  PLU=ON  L23 AND L28
L42           2 SEA ABB=ON  PLU=ON  L23 AND L29
L43           0 SEA ABB=ON  PLU=ON  L23 AND L30
L44          26 SEA ABB=ON  PLU=ON  L21 OR L24 OR L34 OR L40 OR L41 OR L42
L45           5 SEA ABB=ON  PLU=ON  L23 AND (L28 OR L29 OR L30)
L46          26 SEA ABB=ON  PLU=ON  L44 OR L45
L47     1645688 SEA ABB=ON  PLU=ON  METAL/OBI OR L13
L48       11370 SEA ABB=ON  PLU=ON  L47 (L) (ENZYM?/OBI OR L29)
L49         230 SEA ABB=ON  PLU=ON  L48 (L) (BIOSENS?/OBI OR REMEDIAT?/OBI)
L50           4 SEA ABB=ON  PLU=ON  L49 AND ANTIBOD?/OBI
L51           5 SEA ABB=ON  PLU=ON  L49 AND ANTIGEN#/OBI
L52          30 SEA ABB=ON  PLU=ON  L51 OR L50 OR L46
                E  HAINSFELD J/AU
                E  HAINFELD J/AU
L53         139 SEA ABB=ON  PLU=ON  HAINFELD J?/AU
L54           3 SEA ABB=ON  PLU=ON  L53 AND L23
L55           3 SEA ABB=ON  PLU=ON  L53 AND (L16 OR L19)
L56           2 SEA ABB=ON  PLU=ON  L53 AND L39
L57           9 SEA ABB=ON  PLU=ON  L53 AND ENZYM?/OBI
L58          12 SEA ABB=ON  PLU=ON  (L54 OR L55 OR L56 OR L57)
L59          10 SEA ABB=ON  PLU=ON  L58 NOT L52


     FILE 'BIOSIS' ENTERED AT 11:11:13 ON 05 DEC 2005
                E HAINFELD J/AU
L60         140 SEA ABB=ON  PLU=ON  ("HAINFELD J"/AU OR "HAINFELD J F"/AU OR
                "HAINFELD JAMES"/AU OR "HAINFELD JAMES F"/AU OR "HAINFELD
                JIM"/AU OR "HAINFELF J"/AU)
L61        2329 SEA ABB=ON  PLU=ON  HER 2 NEU OR HER 2NEU
L62           4 SEA ABB=ON  PLU=ON  L61 AND L60
L63      119968 SEA ABB=ON  PLU=ON  METAL#
L64      312573 SEA ABB=ON  PLU=ON  L11 OR GOLD OR SILVER OR IRON OR MERCURY
                OR NICKEL OR COPPER OR PLATINUM OR PALLADIUM OR COBALT OR
                IRIDIUM
L65     1812729 SEA ABB=ON  PLU=ON  ENZYM?
L66       82379 SEA ABB=ON  PLU=ON  L25 OR PEROXIDASE/OBI
L67           2 SEA ABB=ON  PLU=ON  L61 AND (L63 OR L64) AND (L65 OR L66)
L68       65021 SEA ABB=ON  PLU=ON  (L63 OR L64) AND (L65 OR L66)
L69       34450 SEA ABB=ON  PLU=ON  (L63 OR L64) (L) (L65 OR L66)
L70           0 SEA ABB=ON  PLU=ON  ENZYM (S) (DEPOSIT?) (S) METAL#
L71           9 SEA ABB=ON  PLU=ON  ENZYM? (S) (DEPOSIT?) (S) METAL#
L72        1072 SEA ABB=ON  PLU=ON  (ENZYM? (L) (DEPOSIT? OR ALTER?) (L)
                METAL#)
L73           6 SEA ABB=ON  PLU=ON  (ENZYM? (L) (DEPOSIT? OR ALTER?) (L)
                METAL#)/IT
L74      161026 SEA ABB=ON  PLU=ON  PROBE#
L75           2 SEA ABB=ON  PLU=ON  L61 AND L74 AND (L63 OR L64)
L76          74 SEA ABB=ON  PLU=ON  L61 AND L74
L77      116540 SEA ABB=ON  PLU=ON  PEROXIDASE OR HYDROGEN PEROXIDE OR
                HYDROQUINONE OR L25 OR L26 OR L27
L78           4 SEA ABB=ON  PLU=ON  L76 AND L77
L79          41 SEA ABB=ON  PLU=ON  L60 AND L64
L80           9 SEA ABB=ON  PLU=ON  L79 AND (ENZYM? OR L77)
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L81          13 SEA ABB=ON  PLU=ON  L62 OR L80
                D QUE L77
L82          12 SEA ABB=ON  PLU=ON  L67 OR  L73 OR L75 OR L78
L83          12 SEA ABB=ON  PLU=ON  L81 NOT L82

     FILE 'CAPLUS, BIOSIS' ENTERED AT 11:31:03 ON 05 DEC 2005
L84          40 DUP REM L52 L82 (2 DUPLICATES REMOVED)
                    ANSWERS '1-30' FROM FILE CAPLUS
                    ANSWERS '31-40' FROM FILE BIOSIS
L85          21 DUP REM L59 L83 (1 DUPLICATE REMOVED)
                    ANSWERS '1-10' FROM FILE CAPLUS
                    ANSWERS '11-21' FROM FILE BIOSIS
```

```
=> fil reg
FILE 'REGISTRY' ENTERED AT 11:31:41 ON 05 DEC 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    4 DEC 2005  HIGHEST RN 869277-23-6
DICTIONARY FILE UPDATES:   4 DEC 2005  HIGHEST RN 869277-23-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

*********************************************************************
*                                                                   *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                   *
*********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> d  que l11
L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  SILVER/CN
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  GOLD/CN
L3             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  IRON/CN
L4             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  MERCURY/CN
L5             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  NICKEL/CN
L6             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  COPPER/CN
L7             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PLATINUM/CN
L8             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PALLADIUM/CN
L9             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  COBALT/CN
L10            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  IRIDIUM/CN
L11           10 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5
                  OR L6 OR L7 OR L8 OR L9 OR L10)


=> d que l25;d que l26; d que l27
L25            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PEROXIDASE/CN



L26            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HYDROGEN PEROXIDE"/CN
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L27           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  HYDROQUINONE/CN


=> fil caplus biosis
FILE 'CAPLUS' ENTERED AT 11:32:36 ON 05 DEC 2005
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FILE 'BIOSIS' ENTERED AT 11:32:36 ON 05 DEC 2005
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=> d que l84
L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  SILVER/CN
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  GOLD/CN
L3             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  IRON/CN
L4             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  MERCURY/CN
L5             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  NICKEL/CN
L6             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  COPPER/CN
L7             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PLATINUM/CN
L8             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PALLADIUM/CN
L9             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  COBALT/CN
L10            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  IRIDIUM/CN
L11           10 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5
                  OR L6 OR L7 OR L8 OR L9 OR L10)
L12      1396141 SEA FILE=CAPLUS ABB=ON  PLU=ON  L11
L13       555952 SEA FILE=CAPLUS ABB=ON  PLU=ON  L12 (L) (ARG OR ANST OR
                  USES)/RL
L14          216 SEA FILE=CAPLUS ABB=ON  PLU=ON  (ENZYM? (S)ALTER?(S) METAL#)/BI

L15           48 SEA FILE=CAPLUS ABB=ON  PLU=ON  (ENZYM? (L)ALTER?(L) METAL#)/OB
                  I
L16          217 SEA FILE=CAPLUS ABB=ON  PLU=ON  L14 OR L15
L21            2 SEA FILE=CAPLUS ABB=ON  PLU=ON  L16 AND L13
L23         1312 SEA FILE=CAPLUS ABB=ON  PLU=ON  (HER 2 NEU)/BI
L24            6 SEA FILE=CAPLUS ABB=ON  PLU=ON  L23 AND L13
L25            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PEROXIDASE/CN
L26            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HYDROGEN PEROXIDE"/CN
L27            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  HYDROQUINONE/CN
L28        58320 SEA FILE=CAPLUS ABB=ON  PLU=ON  L25 OR PEROXIDASE/OBI
L29        99222 SEA FILE=CAPLUS ABB=ON  PLU=ON  L26 OR HYDROGEN PEROXIDE/OBI
L30        28855 SEA FILE=CAPLUS ABB=ON  PLU=ON  L27 OR HYDROQUINONE/OBI
L31          107 SEA FILE=CAPLUS ABB=ON  PLU=ON  L28 AND L29 AND L30
L32           10 SEA FILE=CAPLUS ABB=ON  PLU=ON  L31 AND L13
L33       539677 SEA FILE=CAPLUS ABB=ON  PLU=ON  ENZYM?/OBI
L34            5 SEA FILE=CAPLUS ABB=ON  PLU=ON  L32 AND L33
L35        96721 SEA FILE=CAPLUS ABB=ON  PLU=ON  PROBE#/OBI
L36       141986 SEA FILE=CAPLUS ABB=ON  PLU=ON  NUCLEIC ACID/OBI
L37        28293 SEA FILE=CAPLUS ABB=ON  PLU=ON  L35 (L) L36
L38        24165 SEA FILE=CAPLUS ABB=ON  PLU=ON  "PROBES (NUCLEIC ACID)"/CT
L39        24165 SEA FILE=CAPLUS ABB=ON  PLU=ON  L38 AND L37
L40           11 SEA FILE=CAPLUS ABB=ON  PLU=ON  L39 AND L23
L41            3 SEA FILE=CAPLUS ABB=ON  PLU=ON  L23 AND L28
L42            2 SEA FILE=CAPLUS ABB=ON  PLU=ON  L23 AND L29
L44           26 SEA FILE=CAPLUS ABB=ON  PLU=ON  L21 OR L24 OR L34 OR L40 OR
                  L41 OR L42
L45            5 SEA FILE=CAPLUS ABB=ON  PLU=ON  L23 AND (L28 OR L29 OR L30)
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L46          26 SEA FILE=CAPLUS ABB=ON  PLU=ON  L44 OR L45
L47     1645688 SEA FILE=CAPLUS ABB=ON  PLU=ON  METAL/OBI OR L13
L48       11370 SEA FILE=CAPLUS ABB=ON  PLU=ON  L47 (L) (ENZYM?/OBI OR L29)
L49         230 SEA FILE=CAPLUS ABB=ON  PLU=ON  L48 (L) (BIOSENS?/OBI OR
                REMEDIAT?/OBI)
L50           4 SEA FILE=CAPLUS ABB=ON  PLU=ON  L49 AND ANTIBOD?/OBI
L51           5 SEA FILE=CAPLUS ABB=ON  PLU=ON  L49 AND ANTIGEN#/OBI
L52          30 SEA FILE=CAPLUS ABB=ON  PLU=ON  L51 OR L50 OR L46
L61        2329 SEA FILE=BIOSIS ABB=ON  PLU=ON  HER 2 NEU OR HER 2NEU
L63      119968 SEA FILE=BIOSIS ABB=ON  PLU=ON  METAL#
L64      312573 SEA FILE=BIOSIS ABB=ON  PLU=ON  L11 OR GOLD OR SILVER OR IRON
                OR MERCURY OR NICKEL OR COPPER OR PLATINUM OR PALLADIUM OR
                COBALT OR IRIDIUM
L65     1812729 SEA FILE=BIOSIS ABB=ON  PLU=ON  ENZYM?
L66       82379 SEA FILE=BIOSIS ABB=ON  PLU=ON  L25 OR PEROXIDASE/OBI
L67           2 SEA FILE=BIOSIS ABB=ON  PLU=ON  L61 AND (L63 OR L64) AND (L65
                OR L66)
L73           6 SEA FILE=BIOSIS ABB=ON  PLU=ON  (ENZYM? (L) (DEPOSIT? OR
                ALTER?) (L) METAL#)/IT
L74      161026 SEA FILE=BIOSIS ABB=ON  PLU=ON  PROBE#
L75           2 SEA FILE=BIOSIS ABB=ON  PLU=ON  L61 AND L74 AND (L63 OR L64)
L76          74 SEA FILE=BIOSIS ABB=ON  PLU=ON  L61 AND L74
L77      116540 SEA FILE=BIOSIS ABB=ON  PLU=ON  PEROXIDASE OR HYDROGEN
                PEROXIDE OR HYDROQUINONE OR L25 OR L26 OR L27
L78           4 SEA FILE=BIOSIS ABB=ON  PLU=ON  L76 AND L77
L82          12 SEA FILE=BIOSIS ABB=ON  PLU=ON  L67 OR  L73 OR L75 OR L78
L84          40 DUP REM L52 L82 (2 DUPLICATES REMOVED)


=> d que l85
L1            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  SILVER/CN
L2            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  GOLD/CN
L3            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  IRON/CN
L4            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  MERCURY/CN
L5            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  NICKEL/CN
L6            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  COPPER/CN
L7            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PLATINUM/CN
L8            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PALLADIUM/CN
L9            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  COBALT/CN
L10           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  IRIDIUM/CN
L11          10 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5
                OR L6 OR L7 OR L8 OR L9 OR L10)
L12     1396141 SEA FILE=CAPLUS ABB=ON  PLU=ON  L11
L13      555952 SEA FILE=CAPLUS ABB=ON  PLU=ON  L12 (L) (ARG OR ANST OR
                USES)/RL
L14         216 SEA FILE=CAPLUS ABB=ON  PLU=ON  (ENZYM? (S)ALTER?(S) METAL#)/BI

L15          48 SEA FILE=CAPLUS ABB=ON  PLU=ON  (ENZYM? (L)ALTER?(L) METAL#)/OB
                I
L16         217 SEA FILE=CAPLUS ABB=ON  PLU=ON  L14 OR L15
L17          15 SEA FILE=CAPLUS ABB=ON  PLU=ON  (ENZYM? (L)DEPOSIT?(L)
                METAL#)/OBI
L18          46 SEA FILE=CAPLUS ABB=ON  PLU=ON  (ENZYM? (S)DEPOSIT?(S)
                METAL#)/BI
L19          47 SEA FILE=CAPLUS ABB=ON  PLU=ON  L17 OR L18
L21           2 SEA FILE=CAPLUS ABB=ON  PLU=ON  L16 AND L13
L23        1312 SEA FILE=CAPLUS ABB=ON  PLU=ON  (HER 2 NEU)/BI
L24           6 SEA FILE=CAPLUS ABB=ON  PLU=ON  L23 AND L13
L25           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PEROXIDASE/CN
L26           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HYDROGEN PEROXIDE"/CN
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L27	1	SEA FILE=REGISTRY ABB=ON PLU=ON HYDROQUINONE/CN
L28	58320	SEA FILE=CAPLUS ABB=ON PLU=ON L25 OR PEROXIDASE/OBI
L29	99222	SEA FILE=CAPLUS ABB=ON PLU=ON L26 OR HYDROGEN PEROXIDE/OBI
L30	28855	SEA FILE=CAPLUS ABB=ON PLU=ON L27 OR HYDROQUINONE/OBI
L31	107	SEA FILE=CAPLUS ABB=ON PLU=ON L28 AND L29 AND L30
L32	10	SEA FILE=CAPLUS ABB=ON PLU=ON L31 AND L13
L33	539677	SEA FILE=CAPLUS ABB=ON PLU=ON ENZYM?/OBI
L34	5	SEA FILE=CAPLUS ABB=ON PLU=ON L32 AND L33
L35	96721	SEA FILE=CAPLUS ABB=ON PLU=ON PROBE#/OBI
L36	141986	SEA FILE=CAPLUS ABB=ON PLU=ON NUCLEIC ACID/OBI
L37	28293	SEA FILE=CAPLUS ABB=ON PLU=ON L35 (L) L36
L38	24165	SEA FILE=CAPLUS ABB=ON PLU=ON "PROBES (NUCLEIC ACID)"/CT
L39	24165	SEA FILE=CAPLUS ABB=ON PLU=ON L38 AND L37
L40	11	SEA FILE=CAPLUS ABB=ON PLU=ON L39 AND L23
L41	3	SEA FILE=CAPLUS ABB=ON PLU=ON L23 AND L28
L42	2	SEA FILE=CAPLUS ABB=ON PLU=ON L23 AND L29
L44	26	SEA FILE=CAPLUS ABB=ON PLU=ON L21 OR L24 OR L34 OR L40 OR L41 OR L42
L45	5	SEA FILE=CAPLUS ABB=ON PLU=ON L23 AND (L28 OR L29 OR L30)
L46	26	SEA FILE=CAPLUS ABB=ON PLU=ON L44 OR L45
L47	1645688	SEA FILE=CAPLUS ABB=ON PLU=ON METAL/OBI OR L13
L48	11370	SEA FILE=CAPLUS ABB=ON PLU=ON L47 (L) (ENZYM?/OBI OR L29)
L49	230	SEA FILE=CAPLUS ABB=ON PLU=ON L48 (L) (BIOSENS?/OBI OR REMEDIAT?/OBI)
L50	4	SEA FILE=CAPLUS ABB=ON PLU=ON L49 AND ANTIBOD?/OBI
L51	5	SEA FILE=CAPLUS ABB=ON PLU=ON L49 AND ANTIGEN#/OBI
L52	30	SEA FILE=CAPLUS ABB=ON PLU=ON L51 OR L50 OR L46
L53	139	SEA FILE=CAPLUS ABB=ON PLU=ON HAINFELD J?/AU
L54	3	SEA FILE=CAPLUS ABB=ON PLU=ON L53 AND L23
L55	3	SEA FILE=CAPLUS ABB=ON PLU=ON L53 AND (L16 OR L19)
L56	2	SEA FILE=CAPLUS ABB=ON PLU=ON L53 AND L39
L57	9	SEA FILE=CAPLUS ABB=ON PLU=ON L53 AND ENZYM?/OBI
L58	12	SEA FILE=CAPLUS ABB=ON PLU=ON (L54 OR L55 OR L56 OR L57)
L59	10	SEA FILE=CAPLUS ABB=ON PLU=ON L58 NOT L52
L60	140	SEA FILE=BIOSIS ABB=ON PLU=ON ("HAINFELD J"/AU OR "HAINFELD J F"/AU OR "HAINFELD JAMES"/AU OR "HAINFELD JAMES F"/AU OR "HAINFELD JIM"/AU OR "HAINFELF J"/AU)
L61	2329	SEA FILE=BIOSIS ABB=ON PLU=ON HER 2 NEU OR HER 2NEU
L62	4	SEA FILE=BIOSIS ABB=ON PLU=ON L61 AND L60
L63	119968	SEA FILE=BIOSIS ABB=ON PLU=ON METAL#
L64	312573	SEA FILE=BIOSIS ABB=ON PLU=ON L11 OR GOLD OR SILVER OR IRON OR MERCURY OR NICKEL OR COPPER OR PLATINUM OR PALLADIUM OR COBALT OR IRIDIUM
L65	1812729	SEA FILE=BIOSIS ABB=ON PLU=ON ENZYM?
L66	82379	SEA FILE=BIOSIS ABB=ON PLU=ON L25 OR PEROXIDASE/OBI
L67	2	SEA FILE=BIOSIS ABB=ON PLU=ON L61 AND (L63 OR L64) AND (L65 OR L66)
L73	6	SEA FILE=BIOSIS ABB=ON PLU=ON (ENZYM? (L) (DEPOSIT? OR ALTER?) (L) METAL#)/IT
L74	161026	SEA FILE=BIOSIS ABB=ON PLU=ON PROBE#
L75	2	SEA FILE=BIOSIS ABB=ON PLU=ON L61 AND L74 AND (L63 OR L64)
L76	74	SEA FILE=BIOSIS ABB=ON PLU=ON L61 AND L74
L77	116540	SEA FILE=BIOSIS ABB=ON PLU=ON PEROXIDASE OR HYDROGEN PEROXIDE OR HYDROQUINONE OR L25 OR L26 OR L27
L78	4	SEA FILE=BIOSIS ABB=ON PLU=ON L76 AND L77
L79	41	SEA FILE=BIOSIS ABB=ON PLU=ON L60 AND L64
L80	9	SEA FILE=BIOSIS ABB=ON PLU=ON L79 AND (ENZYM? OR L77)
L81	13	SEA FILE=BIOSIS ABB=ON PLU=ON L62 OR L80
L82	12	SEA FILE=BIOSIS ABB=ON PLU=ON L67 OR L73 OR L75 OR L78
L83	12	SEA FILE=BIOSIS ABB=ON PLU=ON L81 NOT L82

L85 21 DUP REM L59 L83 (1 DUPLICATE REMOVED)

=> d .ca l84 1-30;d ibib ab it l84 31-40;d ibib l85 1-21

L84 ANSWER 1 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2002:446862 CAPLUS
DOCUMENT NUMBER: 137:363817
TITLE: Gold-facilitated in situ hybridization: a bright-field autometallographic alternative to fluorescence in situ hybridization for detection of **HER-2/neu** gene amplification
AUTHOR(S): Tubbs, Raymond; Pettay, James; Skacel, Marek; Powell, Richard; Stoler, Mark; Roche, Patrick; Hainfeld, James
CORPORATE SOURCE: Department of Anatomic and Clinical Pathology, Cleveland Clinic Foundation, Cleveland, OH, USA
SOURCE: American Journal of Pathology (2002), 160(5), 1589-1595
CODEN: AJPAA4; ISSN: 0002-9440
PUBLISHER: American Society for Investigative Pathology
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 14 Jun 2002
AB Fluorescence in situ hybridization (FISH) represents an excellent method for profiling gene amplification in situ, but correlation with tissue morphol. is difficult because of dark-field visualization. Validation of a bright-field assay for assessment of **HER-2/neu** gene amplification was investigated. Streptavidin-Nanogold was used to generate bright-field gene copy signals using GoldEnhance gold-based autometallog., catalyzed reported deposition, and a biotin-labeled probe. One hundred cases of invasive breast carcinoma were evaluated for which FISH gene copy results, and mRNA and oncoprotein gene expression, were known. Autometallog. signals were qual. evaluable without the use of oil immersion microscopy. Results correlated well with indirect and direct label FISH. Autometallog. gold-based in situ hybridization represents a promising bright-field assay for the assessment of **HER-2/neu** gene amplification.
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9, 14
IT Gene, animal
RL: ANT (Analyte); ANST (Analytical study)
(ERBB2; gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)
IT Recombination, genetic
(amplification; gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)
IT Microscopy
(bright field; gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)
IT Mammary gland, neoplasm
(carcinoma; gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)
IT Human
(gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)

IT Immunoassay
(immunohistochem.; gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)
IT Nucleic acid hybridization
(in situ, Autometallog. gold-based; gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)
IT Carcinoma
(mammary; gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)
IT **7440-57-5**, Gold, biological studies
RL: **ARG (Analytical reagent use)**; BUU (Biological use, unclassified); **ANST (Analytical study)**; BIOL (Biological study); **USES (Uses)**
(GoldEnhance gold-based autometallog.; gold-facilitated in situ hybridization is a bright-field autometallog. alternative to FISH for detection of **HER-2/neu** gene amplification)
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2000:858199 CAPLUS
DOCUMENT NUMBER: 135:163056
TITLE: Chromogenic in situ hybridization: A practical alternative for fluorescence in situ hybridization to detect **HER-2/neu** oncogene amplification in archival breast cancer samples
AUTHOR(S): Tanner, Minna; Gancberg, David; Di Leo, Angelo; Larsimont, Denis; Rouas, Ghizlane; Piccart, Martine J.; Isola, Jorma
CORPORATE SOURCE: Laboratory of Cancer Genetics, Technology University and University Hospital of Tampere, Tampere, FIN-33101, Finland
SOURCE: American Journal of Pathology (2000), 157(5), 1467-1472
CODEN: AJPAA4; ISSN: 0002-9440
PUBLISHER: American Society for Investigative Pathology
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 07 Dec 2000
AB Determination of **HER-2/neu** oncogene amplification has become necessary for selection of breast cancer patients for trastuzumab (Herceptin) therapy. Fluorescence in situ hybridization (FISH) is currently regarded as a gold standard method for detecting **HER-2/neu** amplification, but it is not very practical for routine histopathol. labs. We evaluated a new modification of in situ hybridization, the chromogenic in situ hybridization (CISH), which enables detection of **HER-2/neu** gene copies with conventional peroxidase reaction. Archival formalin-fixed paraffin-embedded tumor tissue sections were pretreated (by heating in a microwave oven and using enzyme digestion) and hybridized with a digoxigenin-labeled DNA probe. The probe was detected with antidigoxigenin fluorescein, anti-fluorescein peroxidase, and diaminobenzidine. Gene copies visualized by CISH could be easily distinguished with a +40 objective in hematoxylin-stained tissue

sections. **HER-2/neu** amplification typically appeared as large peroxidase-pos. intranuclear gene copy clusters. CISH and FISH (according to Vysis, made from frozen pulverized tumor samples) correlated well in a series of 157 breast cancers (kappa coefficient, 0.81). The few different classifications were mostly because of low-level amplifications by FISH that were neg. by CISH and immunohistochem. with monoclonal antibody CB-11. We conclude that CISH, using conventional bright-field microscopy in evaluation, is a useful alternative for determination of **HER-2/neu** amplification in paraffin-embedded tumor samples, especially for confirming the immunohistochem. staining results.

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 14

IT Fusion proteins (chimeric proteins)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(anti-fluorescein antibody fusion with horseradish **peroxidase**; for chromogenic in situ hybridization detection of **HER-2/neu** oncogene amplification in breast cancer samples)

IT Gene, animal
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(c-erbB2; chromogenic in situ hybridization detects **HER-2/neu** oncogene amplification in archival breast cancer samples)

IT neu (receptor)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(chromogenic in situ hybridization detects **HER-2/neu** oncogene amplification in archival breast cancer samples)

IT **Probes (nucleic acid)**
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(digoxigenin-labeled; for chromogenic in situ hybridization detection of **HER-2/neu** oncogene amplification in breast cancer samples)

IT Nucleic acid hybridization
(in situ, CISH (chromogenic in situ hybridization); chromogenic in situ hybridization detects **HER-2/neu** oncogene amplification in archival breast cancer samples)

IT Mammary gland
(neoplasm; chromogenic in situ hybridization detects **HER-2/neu** oncogene amplification in archival breast cancer samples)

IT Antibodies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(to digoxigenin and fluorescein; for chromogenic in situ hybridization detection of **HER-2/neu** oncogene amplification in breast cancer samples)

IT 1672-46-4D, Digoxigenin, DNA conjugates 2321-07-5D, Fluorescein, anti-digoxigenin antibody conjugates 66836-18-8, Diaminobenzidine
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for chromogenic in situ hybridization detection of **HER-2/neu** oncogene amplification in breast cancer samples)

IT **9003-99-0D, Peroxidase**, anti-fluorescein antibody conjugates

RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(horseradish; for chromogenic in situ hybridization detection of **HER-2/neu** oncogene amplification in breast cancer samples)
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:972223 CAPLUS
DOCUMENT NUMBER: 143:278678
TITLE: Mechanism of Action of (-)-Epigallocatechin-3-Gallate: Auto-oxidation-Dependent Inactivation of Epidermal Growth Factor Receptor and Direct Effects on Growth Inhibition in Human Esophageal Cancer KYSE 150 Cells
AUTHOR(S): Hou, Zhe; Sang, Shengmin; You, Hui; Lee, Mao-Jung; Hong, Jungil; Chin, Khew-Voon; Yang, Chung S.
CORPORATE SOURCE: Susan Lehman Cullman Laboratory for Cancer Research, Department of Chemical Biology, Ernest Mario School of Pharmacy, Rutgers, The State University of New Jersey, Piscataway, NJ, USA
SOURCE: Cancer Research (2005), 65(17), 8049-8056
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 07 Sep 2005
AB (-)-Epigallocatechin-3-gallate (EGCG), the principal polyphenol in green tea, has been shown to inhibit the growth of many cancer cell lines and to suppress the phosphorylation of epidermal growth factor receptor (EGFR). We observed similar effects of EGCG in esophageal squamous cell carcinoma KYSE 150 cells and epidermoid squamous cell carcinoma A431 cells. Pretreatment of KYSE 150 cells with EGCG (20 μmol/L) for 0.5 to 24 h in HAM's F12 and RPMI 1640 mixed medium at 37, before the addition of EGF, resulted in a decreased level of phosphorylated EGFR (by 32-85%). Prolonged treatment with EGCG (8 or 24 h) also decreased EGFR protein level (both by 80%). EGCG treatment for 24 h also caused decreased signals of **HER-2/neu** in esophageal adenocarcinoma OE19 cells. These effects of EGCG were prevented or diminished by the addition of superoxide dismutase (SOD, 5 units/mL), or SOD plus catalase (30 units/mL), to the cell culture medium. A similar phenomenon on inactivation of EGFR was observed in A431 cells as well. Under culture conditions for KYSE 150 cells, EGCG was unstable, with a half-life of .apprx.30 min; EGCG dimers and other oxidative products were formed. The presence of SOD in the culture medium stabilized EGCG and increased its half-life to longer than 24 h and some EGCG epimerized to (+)-gallocatechin-3-gallate. A mechanism of superoxide radical-mediated dimerization of EGCG and H2O2 formation is proposed. The stabilization of EGCG by SOD in the culture medium potentiated the activity of EGCG in inhibiting KYSE 150 cell growth. The results suggest that in cell culture conditions, the auto-oxidation of EGCG leads to EGFR inactivation, but the inhibition of cell growth is due to other mechanisms. It remains to be determined whether the presently observed auto-oxidation of EGCG occurs in vivo. In future studies of EGCG and other polyphenolic compds. in cell culture, SOD may be added to stabilize EGCG and to avoid possible artifacts.
CC 1-6 (Pharmacology)
IT **7722-84-1, Hydrogen peroxide**, biological studies 9054-89-1, Superoxide dismutase 11062-77-4, Superoxide
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(mechanism of antitumor action of epigallocatechin gallate in human esophageal cancer KYSE 150 cells)
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 4 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:207047 CAPLUS
DOCUMENT NUMBER: 142:442529
TITLE: Real-time detection of gene expression in cancer cells using molecular beacon imaging: new strategies for cancer research
AUTHOR(S): Peng, Xiang-Hong; Cao, Ze-Hong; Xia, Jin-Tang; Carlson, Grant W.; Lewis, Melinda M.; Wood, William C.; Yang, Lily
CORPORATE SOURCE: Department of Surgery, Winship Cancer Institute, Emory University School of Medicine, Atlanta, GA, 30322, USA
SOURCE: Cancer Research (2005), 65(5), 1909-1917
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 09 Mar 2005
AB Development of novel approaches for quant. anal. of gene expression in intact tumor cells should provide new means for cancer detection and for studying the response of cancer cells to biol. and therapeutic reagents. We developed procedures for detecting the levels of expression of multiple genes in fixed as well as viable cells using mol. beacon imaging technol. We found that simultaneous delivery of mol. beacons targeting survivin and cyclin D1 mRNAs produced strong fluorescence in breast cancer but not in normal breast cells. Importantly, fluorescence intensity correlated well with the level of gene expression in the cells detected by real-time reverse transcription-PCR or Western blot anal. We further show that mol. beacons can detect changes of survivin gene expression in viable cancer cells following epidermal growth factor stimulation, docetaxel treatment, and overexpression of p53 gene. Thus, mol. beacon imaging is a simple and specific method for detecting gene expression in cancer cells. It has great potential for cancer detection and drug development.
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 1, 14
IT Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); DGN (Diagnostic use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(real-time detection of gene expression in cancer cells using mol. beacon imaging as new strategy for cancer research)
IT 851060-61-2
RL: ARG (Analytical reagent use); DGN (Diagnostic use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence, **HER-2/neu**; real-time detection of gene expression in cancer cells using mol. beacon imaging as new strategy for cancer research)
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 5 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:100736 CAPLUS
DOCUMENT NUMBER: 143:38798
TITLE: Copy number analysis of c-erb-B2 (**HER-2/neu**) and topoisomerase IIα genes in breast carcinoma by quantitative real-time

polymerase chain reaction using hybridization probes and fluorescence in situ hybridization
AUTHOR(S): Murthy, Sabita K.; Magliocco, Anthony M.; Demetrick, Douglas J.
CORPORATE SOURCE: Department of Pathology, Calgary Laboratory Services, The University of Calgary, Calgary, AB, Can.
SOURCE: Archives of Pathology & Laboratory Medicine (2005), 129(1), 39-46
CODEN: APLMAS; ISSN: 0003-9985
PUBLISHER: College of American Pathologists
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 07 Feb 2005
AB The Topoisomerase IIα (TOP2A) protein is the target of the anthracycline class of chemotherapeutic agents. TOP2A is frequently coamplified with c-erb-B2 and consequently might be a prognostic and/or predictive factor for breast cancer patients when anthracycline-based chemotherapy is a consideration. A total of 20% to 35% of breast carcinomas show amplification of the erb-B2 gene, some of which also have coamplification of the TOP2A gene. Investigation of the prognostic or predictive significance of these gene amplifications requires a reliable and sensitive method for the measurement of gene copy number in clin. tumor samples. To assess 2 different assay methods that might allow accurate, reproducible, quant., and high-throughput estimation of gene copy number in fresh, frozen, or paraffin-embedded breast cancer specimens. We developed an assay and analyzed the gene copy nos. of the erb-B2 and TOP2A genes in 8 breast cancer cell lines, 6 fresh frozen samples, and 38 paraffin-embedded breast tumor specimens by a novel real-time polymerase chain reaction (PCR) assay using hybridization probes. The results were compared with standard fluorescence in situ hybridization. We discovered a 100% concordance between assessment of gene copy number of erb-B2 and TOP2A, and between quant. PCR and fluorescence in situ hybridization (FISH). Quant. PCR also had the addnl. feature of uncovering an erb-B2 gene polymorphism. Finally, we observed that TOP2A amplification only occurred in conjunction with erb-B2 amplification in our paraffin-embedded cases of invasive breast carcinoma and that this event was present in 5 (42%) of 12 erb-B2 amplified cases. We conclude that the potentially automatic, real-time PCR anal. using hybridization probes is an efficient method to perform copy number anal., with results that appear identical to the FISH technique and with the benefit of identifying HER-2 polymorphisms.
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 13, 14
IT **Probes (nucleic acid)**
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(copy number anal. of c-erb-B2 and topoisomerase IIα genes in breast carcinoma by quant. real-time PCR)
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:606388 CAPLUS
DOCUMENT NUMBER: 141:119769
TITLE: Multi-layered electrochemical microfluidic sensor comprising reagent on porous layer
INVENTOR(S): Rossier, Joeel Stephane; Reymond, Frederic; Morier, Patrick
PATENT ASSIGNEE(S): Diagnoswiss S.A., Switz.
SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004062801	A1	20040729	WO 2004-EP1013	20040114
W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GH, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ				
EP 1585596	A1	20051019	EP 2004-701957	20040114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.: GB 2003-820 A 20030114
WO 2004-EP1013 W 20040114

ED Entered STN: 29 Jul 2004

AB Microfluidic electrochem. sensor apparatus and a method for conducting anal. tests with said apparatus for multi-reactant assays. The apparatus of this invention is a multi-layer body made of at least three layers, the 1st one being a polymer layer comprising a microstructure with at least one integrated microelectrode and conductive tracks for connection to an external electrochem. unit, the 2nd one being a nonporous material serving to cover said microstructure so as to enable microfluidic manipulations and the 3rd one being a porous layer such as a membrane or a glass frit, said porous layer comprising at least one reagent to be solubilized upon contact with a test solution and reacting with an analyte present in said solution to form a product that is transported along said microstructure so as to enable electrochem. detection of said analyte. The invention notably enables the performance of multi-reactant assays in a reduced number of steps.

IC ICM B01L003-00
ICS G01N027-40; G01N027-447; G01N033-487

CC 9-1 (Biochemical Methods)

IT Antibodies and Immunoglobulins
Antigens
DNA
Enzymes, uses
Ligands
Oligonucleotides
Peptides, uses
Proteins
RNA
Receptors
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(multi-layered electrochem. microfluidic sensor with reagent on porous layer)

IT **9003-99-0, Peroxidase**
RL: ANT (Analyte); ANST (Analytical study)
(horseradish; multi-layered electrochem. microfluidic sensor with reagent on porous layer)

IT **123-31-9, Hydroquinone**, uses **7722-84-1, Hydrogen peroxide**, uses 27598-85-2, Aminophenol
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(multi-layered electrochem. microfluidic sensor with reagent on porous layer)

IT **7440-22-4**, Silver, uses **7440-50-8**, Copper, uses
7440-57-5, Gold, uses 7783-90-6, Silver chloride, uses
9004-34-6, Cellulose, uses
RL: DEV (Device component use); **USES (Uses)**
(multi-layered electrochem. microfluidic sensor with reagent on porous layer)

L84 ANSWER 7 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:870514 CAPLUS
DOCUMENT NUMBER: 142:19426
TITLE: Electrocatalytic H2O2 amperometric detection using gold nanotube electrode ensembles
AUTHOR(S): Delvaux, Marc; Walcarius, Alain; Demoustier-Champagne, Sophie
CORPORATE SOURCE: Unite de Physique et de Chimie des Hauts Polymeres, Universite Catholique de Louvain, Louvain-la-Neuve, B-1348, Belg.
SOURCE: Analytica Chimica Acta (2004), 525(2), 221-230
CODEN: ACACAM; ISSN: 0003-2670
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 21 Oct 2004
AB Arrays of nanoscopic gold tubes were prepared by electroless plating of the metal within the pores of nanoporous polycarbonate track-etched membranes. A procedure for fabricating an ensemble of enzyme-modified nanoelectrodes has been developed based on the efficient immobilization of horseradish peroxidase (HRP) to the gold nanotubes array using self-assembled monolayers (mercaptoethylamine or mercaptopropionic acid) as anchoring layers. Hydrogen peroxide (H2O2) was determined electrochem. by using gold nanoelectrode ensembles (NEE) functionalized or not in phosphate buffer solution (PB) with or without a mediator (hydroquinone, H2Q). Bare NEE displays a remarkable sensitivity (14 μA mM-1 in H2Q at -0.1 V vs. Ag/AgCl) compared to a classical gold macroelectrode (0.41 μA mM-1). The gold nanoparticles that form the tubular structure act as excellent catalytic surfaces towards the oxidation and the reduction of H2O2. The HRP modified NEE presents a slightly lower sensitivity (9.5 μA mM-1) than bare NEE. However, this system presents an enhanced limit of detection (up to 4+10-6 M) and a higher selectivity towards the detection of H2O2 over a wide range of potentials. The lifetime, fabrication reproducibility and measurement repeatability of the HRP enzyme electrode were evaluated with satisfactory results.
CC 9-7 (Biochemical Methods)
IT **Enzyme** electrodes
Microelectrodes
Nanoparticles
Nanotubes
Self-assembled monolayers
(electrocatalytic H2O2 amperometric detection using gold nanotube electrode ensembles)
IT **7722-84-1**, **Hydrogen peroxide**, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(electrocatalytic H2O2 amperometric detection using gold nanotube electrode ensembles)
IT **7440-57-5**, Gold, uses
RL: DEV (Device component use); **USES (Uses)**
(electrocatalytic H2O2 amperometric detection using gold nanotube

electrode ensembles)
IT **123-31-9**, **Hydroquinone**, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(electron mediator; electrocatalytic H2O2 amperometric detection using gold nanotube electrode ensembles)
IT **9003-99-0**, **Peroxidase**
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(horseradish; electrocatalytic H2O2 amperometric detection using gold nanotube electrode ensembles)
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 8 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:175492 CAPLUS
DOCUMENT NUMBER: 140:386578
TITLE: Real-time quantitative PCR of microdissected paraffin-embedded breast carcinoma: An alternative method for **HER-2/neu** analysis
AUTHOR(S): Gjerdrum, Lise Mette; Sorensen, Boe Sandahl; Kjeldsen, Eigil; Sorensen, Flemming Brandt; Nexo, Ebba; Hamilton-Dutoit, Stephen
CORPORATE SOURCE: Institutes of Pathology, Aarhus University Hospital, Aarhus, Den.
SOURCE: Journal of Molecular Diagnostics (2004), 6(1), 42-51
CODEN: JMDIFP; ISSN: 1525-1578
PUBLISHER: Association for Molecular Pathology
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 04 Mar 2004
AB We studied the feasibility of using real-time quant. PCR to determine HER-2 DNA amplification and mRNA expression in microdissected formalin-fixed, paraffin-embedded breast tumors and compared this with standard immunohistochem. (IHC) and fluorescent in situ hybridization (FISH) methods. Study cases (27 carcinomas and 3 ductal breast carcinoma in situ (DCIS) cases) showed varying Her-2 expression as determined by IHC (HercepTest). In carcinomas, there was a good correlation between HER-2 DNA amplification and strong HER-2 protein expression detected by FISH and IHC, resp. A single DCIS case was amplified in FISH, but not in IHC. Both HER-2 gene amplification and expression could be quantified in microdissected paraffin-embedded tumors using real-time PCR, DNA and RNA being successfully detected in 146 of 150 (97%) and 141 of 150 (94%) samples, resp. PCR anal. for HER-2 DNA amplification using the LightCycler HER2/neu DNA Quantification kit (Roche Mol. Biochems., Mannheim, Germany) correlated fairly well with IHC and FISH. All IHC HER-2 3+ tumors were amplified according to the kit, as was the FISH-amplified DCIS case. DNA-PCR identified five addnl. tumors as being amplified. Interestingly, all these scored 2+ with the HercepTest, but were neg. using FISH. We believe that real-time quant. PCR anal. of HER-2 DNA amplification following microdissection represents a useful supplementary or perhaps even an alternative technique for establishing HER-2 status in paraffin-embedded tumors.
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 14
IT **Probes (nucleic acid)**
RL: ARG (Analytical reagent use); DGN (Diagnostic use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(5-labeled with FAM and 3'-labeled with TAMRA; establishing gene HER-2

status in paraffin-embedded breast carcinoma using real-time quant. PCR, and comparison of results to those obtained using standard immunohistochem. and FISH hybridization)
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 9 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:931173 CAPLUS
DOCUMENT NUMBER: 139:391342
TITLE: Anti-estrogen receptor agents for chemotherapy and prevention
INVENTOR(S): Hung, Mien-chie; Lau, Yiu-keung; Wen, Yong
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
SOURCE: PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003097049	A1	20031127	WO 2002-US15109	20020514

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: WO 2002-US15109 20020514
ED Entered STN: 28 Nov 2003
AB Methods and compns. for the prevention of ER-pos. cancer and the treatment of ER-pos. **HER-2/neu**-neg. breast cancer are disclosed. Compns. exhibiting both tyrosine kinase inhibitor activity and anti-estrogen receptor activity are useful in the cancer treatment.
IC ICM A61K031-44
ICS A61K031-35; A61K031-19
CC 1-6 (Pharmacology)
Section cross-reference(s): 2, 3, 8, 14, 15
IT Mammary gland, neoplasm
(estrogen receptor pos. and **HER-2-neu** neg.; anti-estrogen receptor agents for chemotherapy and prevention)
IT 50-07-7, Mitomycin C 50-18-0, Cyclophosphamide 51-21-8, 5-Fluorouracil 57-22-7, Vincristine 59-05-2, Methotrexate 446-72-0, Genistein 518-82-1, Emodin 865-21-4, Vinblastine 1605-68-1, Taxane **7440-06-4**, Platinum, biological studies 15663-27-1, Cisplatin 23214-92-8, Doxorubicin 33069-62-4, Paclitaxel 41575-94-4, Carboplatin 56420-45-2, Epirubicin 65271-80-9, Mitoxantrone 71486-22-1, Vinorelbine 95058-81-4, Gemcitabine 114977-28-5, Docetaxel 149286-90-8, RG13022 154361-50-9, Capecitabine 180288-69-1, Herceptin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); **USES (Uses)**
(anti-estrogen receptor agents for chemotherapy and prevention)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:913391 CAPLUS
DOCUMENT NUMBER: 139:393102
TITLE: Magneto-controlled method and system for determination of an analyte in a liquid medium
INVENTOR(S): Willner, Itamar; Katz, Eugenii; Weizmann, Yossi; Patolsky, Fernando
PATENT ASSIGNEE(S): Yissum Research Development Company of the Hebrew University of Jerusalem, Israel
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003096014	A2	20031120	WO 2003-IL369	20030506
WO 2003096014	A3	20040304		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1512009	A2	20050309	EP 2003-720831	20030506
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.:
US 2002-378410P P 20020508
US 2002-436005P P 20021226
WO 2003-IL369 W 20030506

ED Entered STN: 21 Nov 2003
AB The present invention concerns a magneto-controlled method and system for the determination of an analyte in a liquid medium. The method and system of the invention are based on the use of functionalized magnetic particles, e.g. magnetic particles that carry a recognition agent, such that in the presence of the analyte and under appropriate conditions, a chemical reaction occurs yielding a reaction signal. The reaction signal may be an elec. signal, a colorimetric signal, light emission or the formation of a precipitate In accordance with the invention the reaction is significantly enhanced by inducing rapid vibrations or rotations of the magnetic particles on the barrier surface. NADH, DNA, antibodies, and telomerase were determined by various assays. For the telomerase assay, activated amine-functionalized magnetic particles were reacted with a mercaptohexyl-modified nucleic acid that contained a sequence recognized by telomerase. Cell extract (from patients with lung cancer) was mixed with the magnetic particle reagent in the presence of a mixture of nucleotide dNTP that included biotinylated dUTP. Avidin-horseradish peroxidase was allowed to react with any synthesized telomer chains. Bound peroxidase was determined using naphthoquinone-functionalized magnetite particles and luminol. Rotation of the magnetic particles by means of an external rotating magnet amplified the emitted light intensity.
IC ICM G01N033-53
CC 9-1 (Biochemical Methods)

Section cross-reference(s): 3, 7

IT **Enzymes**, analysis
RL: ANT (Analyte); ARG (Analytical reagent use); BSU (Biological study, unclassified); CAT (Catalyst use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(as recognition agent on magnetic particles or as analyte; magneto-controlled method and system using magnetic particles carrying recognition agents for determination of analytes in liquid media)

IT **Enzymes**, biological studies
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); CAT (Catalyst use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with avidin; magneto-controlled method and system using magnetic particles carrying recognition agents for determination of analytes in liquid media)

IT Avidins
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with **enzymes**; magneto-controlled method and system using magnetic particles carrying recognition agents for determination of analytes in liquid media)

IT **7440-06-4**, Platinum, analysis **7440-22-4**, Silver, analysis **7440-57-5**, Gold, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); **ANST (Analytical study); USES (Uses)**
(electrode; magneto-controlled method and system using magnetic particles carrying recognition agents for determination of analytes in liquid media)

IT 243986-04-1
RL: ARU (Analytical role, unclassified); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); FORM (Formation, nonpreparative); PROC (Process)
(formation and precipitation of, in DNA anal. using horseradish **peroxidase**; magneto-controlled method and system using magnetic particles carrying recognition agents for determination of analytes in liquid media)

IT **9003-99-0D**, **Peroxidase**, conjugates with avidin
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); CAT (Catalyst use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(magneto-controlled method and system using magnetic particles carrying recognition agents for determination of analytes in liquid media)

IT **7722-84-1**, **Hydrogen peroxide**, analysis
RL: ARU (Analytical role, unclassified); FMU (Formation, unclassified); ANST (Analytical study); FORM (Formation, nonpreparative)
(magneto-controlled method and system using magnetic particles carrying recognition agents for determination of analytes in liquid media)

IT **123-31-9**, **Hydroquinone**, analysis
RL: ARU (Analytical role, unclassified); FMU (Formation, unclassified); RCT (Reactant); ANST (Analytical study); FORM (Formation, nonpreparative); RACT (Reactant or reagent)
(magneto-controlled method and system using magnetic particles carrying recognition agents for determination of analytes in liquid media)

L84 ANSWER 11 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:512075 CAPLUS

DOCUMENT NUMBER: 139:63320
TITLE: Anti-estrogen receptor agents for chemotherapy
INVENTOR(S): Hung, Mien-Chie; Lau, Yiu-Keung; Wen, Yong
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 49 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2003125265	A1	20030703	US 2002-142115		20020509
PRIORITY APPLN. INFO.:			US 2001-289658P	P	20010509

ED Entered STN: 04 Jul 2003
AB Methods and compns. regarding the prevention of ER-pos. cancer and the treatment of ER-pos. **HER-2/neu**-neg. breast cancer are disclosed. Compns. exhibiting both tyrosine kinase inhibitor activity and anti-estrogen receptor activity are useful in the cancer treatment. Emodin, having tyrosine kinase inhibitory activity and anti-estrogen activity, mediated chemopreventive activity of breast tumor development in transgenic mice.
IC ICM A61K031-7048
ICS A61K031-353; A61K031-12
INCL 514027000; 514456000; 514680000
CC 1-6 (Pharmacology)
Section cross-reference(s): 63
IT 50-07-7, Mitomycin C 50-18-0, Cyclophosphamide 51-21-8, 5-Fluorouracil 57-22-7, Vincristine 59-05-2, Methotrexate 289-95-2D, Pyrimidine, Fluoro derivs. 865-21-4, Vinblastine **7440-06-4D**, Platinum, compds. 15663-27-1, Cisplatin 23214-92-8, Doxorubicin 33069-62-4, Paclitaxel 41575-94-4, Carboplatin 56420-45-2, Epirubicin 65271-80-9, Mitoxantrone 71486-22-1, Vinorelbine 95058-81-4, Gemcitabine 114977-28-5, Docetaxel 154361-50-9, Capecitabine 180288-69-1, Herceptin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); **USES (Uses)**
(chemotherapy with; anti-estrogen receptor and tyrosine kinase inhibitor agents for cancer chemotherapy)

L84 ANSWER 12 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:263082 CAPLUS
DOCUMENT NUMBER: 140:55753
TITLE: Immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for the detection of **hydrogen peroxide**
AUTHOR(S): Lei, Cun-Xi; Hu, Shun-Qin; Shen, Guo-Li; Yu, Ru-Qin
CORPORATE SOURCE: College of Chemistry and Chemical Engineering, State Key Laboratory for Chemo/Biosensing and Chemometrics, Hunan University, People's Republic ofChangsha, 410082, Peop. Rep. China
SOURCE: Talanta (2003), 59(5), 981-988
CODEN: TLNTA2; ISSN: 0039-9140
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 06 Apr 2003
AB A procedure for fabricating an enzyme electrode has been described based

on the effective immobilization of horseradish peroxidase (HRP) to a nano-scaled particulate gold (nano-Au) monolayer modified chitosan-entrapped carbon paste electrode (CCPE). The high affinity of chitosan entrapped in CCPE for nano-Au associated with its amino groups has been utilized to realize the use of nano-Au as an intermediator to retain high bioactivity of the enzyme. Hydrogen peroxide (H2O2) was determined in the presence of hydroquinone as a mediator to transfer electrons between the electrode and HRP. The HRP immobilized on nano-Au displayed excellent electrocatalytical activity to the reduction of H2O2. The effects of exptl. variables such as the operating potential of the working electrode, mediator concentration and pH of measuring solution were investigated for optimum anal. performance by using an amperometric method. The enzyme electrode provided a linear response to hydrogen peroxide over a concentration range of 1.22+10-5-2.43+10-3 mol l-1 with a sensitivity of 0.013 A l mol-1 cm-2 and a detection limit of 6.3 μmol l-1 based on signal per noise =3. The apparent Michaelis-Menten constant (Kmapp) for the sensor was found to be 0.36 mmol l-1. The lifetime, fabrication reproducibility and measurement repeatability were evaluated with satisfactory results. The anal. results of real sample by this sensor were in satisfactory agreement with those of the potassium permanganate titration method.

CC 9-1 (Biochemical Methods)

ST horseradish **peroxidase** electrode **hydrogen peroxide** carbon paste chitosan gold

IT Paste electrodes
(carbon; immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT Amperometry
Cyclic voltammetry
Enzyme electrodes
Immobilization, molecular or cellular
Michaelis constant
pH
(immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT **Enzymes**, uses
RL: ARG (Analytical reagent use); DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(immobilized; immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT Stability
(storage, of HRP electrode; immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT **7440-57-5**, Gold, analysis
RL: ARU (Analytical role, unclassified); DEV (Device component use); **ANST (Analytical study); USES (Uses)**
(colloidal; immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT **9003-99-0, Peroxidase**
RL: ARG (Analytical reagent use); DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(horseradish; immobilization of horseradish **peroxidase** to a

nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT **7722-84-1**, **Hydrogen peroxide**, analysis
RL: ANT (Analyte); ANST (Analytical study)
(immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT **123-31-9**, **Hydroquinone**, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT 9012-76-4, Chitosan
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

IT 7440-44-0, Carbon, uses
RL: DEV (Device component use); USES (Uses)
(paste electrodes; immobilization of horseradish **peroxidase** to a nano-Au monolayer modified chitosan-entrapped carbon paste electrode for detection of **hydrogen peroxide**)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 13 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:101837 CAPLUS
DOCUMENT NUMBER: 140:298191
TITLE: Automatic quantification of gene amplification in clinical samples by IQ-FISH
AUTHOR(S): Narath, R.; Loerch, T.; Rudas, M.; Ambros, P. F.
CORPORATE SOURCE: CCRI, Children's Cancer Research Institute, St. Anna Kinderspital, Vienna, A-1090, Austria
SOURCE: Cytometry, Part B: Clinical Cytometry (2003), Volume Date 2004, 57B(1), 15-22
CODEN: CPBCB5
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 09 Feb 2004
AB The reliable detection and quantification of gene amplifications is crucial to clin. practice. Although there are different detection techniques, the fluorescence in situ hybridization (FISH) method has become highly accepted over past years because it is a reliable, robust, and quick method. Unfortunately, automatic quantification of gene amplification based on fluorescence intensities has not been possible thus far. Because current spot counting methods are reliable only when analyzing low amplification rates, we attempted to establish another method, i.e., to quantify the intensity of different FISH signals using an automatic fluorescence microscopical device on interphase nuclei: interphase quant. FISH (IQ-FISH). We quantified the fluorescence intensities of the differently labeled FISH probes (MYCN and D2Z) hybridized to three different neuroblastoma cell lines, six peripheral blood (PB) samples, 10 spiked PB samples, and nine neuroblastoma samples using the Metafer4 system (MetaSystems, Altlussheim, Germany). To obtain the MYCN copy number per cell, the ratio between the fluorescence intensities of the MYCN gene and reference sequence (D2Z) was calculated For automatic anal.
of the **HER-2/neu** status in tumor cells,

labeled FISH probes specific for **HER-2/neu** and a chromosome 17-specific probe were hybridized to peripheral blood and tumor specimens and analyzed using the automatic device. When measuring the fluorescence intensity per cell for both probe pairs (MYCN/D2Z and HER-2/17p), amplified and non-amplified cells, showed distinct peaks with only little overlap. Whereas normal cells showed a fluorescence ratio peak for MYCN/D2Z between 200 and 800, cells with MYCN amplification clearly exceeded this ratio value (1000 to 25,000). When mixing a varying number of MYCN amplified cells (range 9-91%) to normal PB, the spiked tumor cells could be identified. Even one neuroblastoma tumor cell in 1000 mononucleated cells could reliably be detected using our device. In neuroblastoma patient samples, non-amplified cells were distinguished from amplified cells. Automatically and manually counted signals gave matching results in amplified and non-amplified samples. **HER-2/neu**-amplified cells were automatically detected in the breast cancer samples analyzed. The automatic measurement of fluorescence signal intensities not only allows a reliable discrimination between non-amplified and amplified cells but also exact quantification of amplified sequences. This is the prerequisite for the following applications: detection of amplified cells in the bone marrow and second-look specimens; comparison between primary and relapse or pre- and post-chemotherapeutic specimens; detection of tumors with focal gene amplification; and quantification of elimination of amplified gene sequences.

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 14

IT **Probes (nucleic acid)**
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(automatic quantification of gene amplification in clin. samples by IQ-FISH)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:123042 CAPLUS
DOCUMENT NUMBER: 136:180121
TITLE: Pseudo-metalloproteins, their preparation and use in biosensors
INVENTOR(S): Lombardi, Angelina; Pavone, Vincenzo
PATENT ASSIGNEE(S): Universita' Degli Studi di Napoli "Federico II", Italy
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

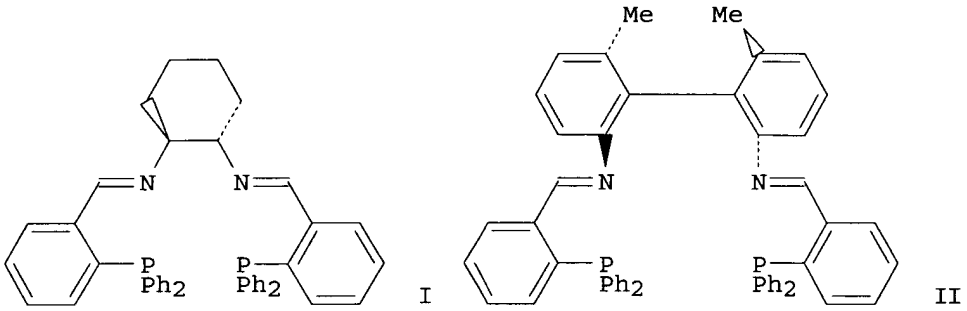
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012278	A2	20020214	WO 2001-IB1427	20010809
WO 2002012278	A3	20020613		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

IT 1317895	B1	20030715	IT 2000-RM454		20000810
CA 2419019	AA	20020214	CA 2001-2419019		20010809
AU 2001076606	A5	20020218	AU 2001-76606		20010809
EP 1309612	A2	20030514	EP 2001-954265		20010809
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
NZ 524643	A	20040924	NZ 2001-524643		20010809
US 2005090649	A1	20050428	US 2003-344329		20010809
PRIORITY APPLN. INFO.:			IT 2000-RM454	A	20000810
			WO 2001-IB1427	W	20010809

OTHER SOURCE(S): MARPAT 136:180121
ED Entered STN: 15 Feb 2002
GI



I II

AB Described herein are Pseudo-metalloproteins (M = metal selected among Fe, Mn, Ti, Mo, Co, Ni, Cu, Pd, Pt, Au, Ru, Cr, V, Tb, Yb, Rh, Ir, Os; X1 = antigen, or else a functional group that enables association to a biomol.; X2 = functional group that enables association to an electrode; S1 and S2 = spacer groups made up of a chain of 3-12 atoms of C, N, O, S and corresponding mixts.; all the other substituents have an amino acid nature), their preparation, and electrochem. biosensors containing them. The biosensors can be used in various assays such as diagnostic assays, immunodiagnostic assays, determination of pollutants in water, etc. A peptide-metal complex, containing Fe3+ as M; substance P sequence as X1; Cys as X2 and C1-4; Gly-Gly as S1 and S2, was prepared The peptides were synthesized on an automatic peptide synthesizer and then complexed with Fe(SO4)2(NH4)2.

IC ICM C07K014-00
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 15, 29, 34, 61
IT **Antigens**
Enzyme inhibitors
Oligonucleotides
Peptide nucleic acids
Thiols, preparation
RL: ARG (Analytical reagent use); DEV (Device component use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(conjugates with peptide-based **metal** complexes; pseudo-metalloproteins, preparation and use in **biosensors**)
IT **Antibodies** and Immunoglobulins
Antigens

Enzymes, analysis
Nucleic acids
Peptides, analysis
Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(pseudo-metalloproteins, preparation and use in biosensors)

L84 ANSWER 15 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:755092 CAPLUS
DOCUMENT NUMBER: 137:259635
TITLE: **Enzymatic** deposition and **alteration** of **metals**
INVENTOR(S): Hainfeld, James F.
PATENT ASSIGNEE(S): Nanoprobes, USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002142411	A1	20021003	US 2001-822131	20010330
US 6670113	B2	20031230		
PRIORITY APPLN. INFO.:			US 2001-822131	20010330

ED Entered STN: 04 Oct 2002
AB Disclosed are methods and materials for utilizing enzymes to act on metal ions in solution so that the ions are reduced to metal. Addnl., disclosed is how to use enzymes to accumulate metal particles. The **alteration** of **metal** particles by **enzymes** interacting with the organic shell of the particles is also described. These methods enable a wide range of applications including sensitive detection of genes and proteins, use as probes for microscopy, nanofabrication, biosensors, and remediation.
IC ICM C12P003-00
INCL 435168000
CC 9-2 (Biochemical Methods)
ST **enzyme metal** deposition **biosensor** bioremediation microscopy nanofabrication
IT Transforming proteins
RL: ANT (Analyte); ANST (Analytical study)
(**Her 2-neu**; **enzymic** deposition and **alteration** of **metals** in detection of)
IT **Remediation**
(bioremediation; **enzymic** deposition and **alteration** of **metals**)
IT **Biosensors**
Microscopy
(**enzymic** deposition and **alteration** of **metals**)
IT **Antigens**
RL: ANT (Analyte); ANST (Analytical study)
(**enzymic** deposition and **alteration** of **metals**)
IT Eubacteria
Mammary gland, neoplasm
(**enzymic** deposition and **alteration** of **metals** in detection of)

IT Estrogen receptors
Progesterone receptors
RL: ANT (Analyte); ANST (Analytical study)
(**enzymic** deposition and **alteration** of **metals** in detection of)
IT **7439-89-6**, Iron, uses **7439-97-6**, Mercury, uses
7440-02-0, Nickel, uses **7440-22-4**, Silver, uses
7440-50-8, Copper, uses **7440-57-5**, Gold, uses
RL: **ARG (Analytical reagent use)**; BCP (Biochemical process); **ANST (Analytical study)**; BIOL (Biological study); PROC (Process); **USES (Uses)**
(**enzymic** deposition and **alteration** of **metals**)
IT 9001-05-2, Catalase **9003-99-0**, **Peroxidase**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**enzymic** deposition and **alteration** of **metals**)

L84 ANSWER 16 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:941798 CAPLUS
DOCUMENT NUMBER: 138:12469
TITLE: Test strip and biosensor incorporating with nanometer metal particles
INVENTOR(S): Shen, Thomas Y. S.; Chen, Wen-Chang; Lin, Hong-Ming; Chuang, Jen-Hung
PATENT ASSIGNEE(S): Apex Biotechnology Corporation, Taiwan
SOURCE: U.S., 13 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6491803	B1	20021210	US 2001-859371	20010518

PRIORITY APPLN. INFO.: US 2001-859371 20010518
ED Entered STN: 12 Dec 2002
AB The present invention relates to a test strip and a biosensor having an increased conductivity and a slurry comprising a fiber, metal particles having a size in nanometer and a bioactive substance. The invention is characterized by incorporating metal particles having size in nanometer into the reaction layer of test strip and biosensor to increase the conductivity between the reaction layer and the electrodes so that the redox reaction can be readily completed and the measurement time can thus be shortened.
IC ICM G01N027-327
ICS B05D003-00
INCL 204403110; 204403060; 204403100; 204403010; 427002130
CC 9-1 (Biochemical Methods)
IT **Enzymes**, uses
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(immobilized; test strip and **biosensor** incorporating with nanometer **metal** particles)
IT **Antibodies** and Immunoglobulins
Antigens
Enzymes, uses

RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(test strip and **biosensor** incorporating with nanometer **metal** particles)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:213734 CAPLUS
DOCUMENT NUMBER: 136:230708
TITLE: Test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines
INVENTOR(S): Jaffee, Deborah R.; Flom, Kerry J.
PATENT ASSIGNEE(S): Ventana Medical Systems, Inc., USA
SOURCE: U.S., 16 pp., Cont.-in-part of U.S. Provisional Ser. No. 72,574.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6358682	B1	20020319	US 1999-237115	19990126
US 2003059790	A1	20030327	US 2002-77272	20020215
PRIORITY APPLN. INFO.:			US 1998-72574P	P 19980126
			US 1999-237115	A3 19990126

ED Entered STN: 21 Mar 2002
AB This invention relates to a method, kit and controls for detecting **HER-2/neu** gene amplification as a predictor of breast cancer recurrence and patient survival. These patients include those who have had primary, invasive localized breast cancer and who are lymph node-neg. The method is a fluorescent in-situ hybridization (FISH) assay using a labeled DNA probe. More specifically, the method involves counting the number of **HER-2/neu** genes in a tumor cell. A specific embodiment of the invention is a kit that contains a DNA probe and detection reagents that yields a green fluorescent signal at the site of each **HER-2/neu** gene on a blue fluorescent background of stained nuclear DNA. The kit is provided for use with 4 μm sections of formalin-fixed, paraffin-embedded human breast cancer tissue on slides. Furthermore, the simultaneous use of another kit containing control cell lines is recommended. The preferred cells lines used for controls are one with high amplification of the **HER -2/neu** gene, one with non-amplification and one with low amplification of this gene. Control tumor cell lines with predefined amts. of **HER-2/neu** gene amplification include a non-amplified control cell line with a mean of 3 or fewer **HER-2/neu** genes per cell (wherein all of the cells are distributed throughout the slide in 3 dimensions), an amplified control cell line with 10 or more such genes/cell and a lower amplified control cell line with 3-10 **HER-2/neu** genes per cell. More specifically, these cell lines are ATCC HTB 30 (SK-BR-3), ATCC HTB 132 (MDA-MB468) and ATCC HTB 133 (T-47D). An average of about 10 or more **HER-2/neu** genes indicates a high likelihood of cancer recurrence, while an average of about 3 or fewer indicates a low likelihood of cancer recurrence. Typically, 20-40 tumor cells are counted. By determining the genetic nature of the cancer cells,

appropriate treatment may be utilized.
IC ICM C12Q001-68
ICS C12P019-34
INCL 435006000
CC 14-1 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 3
IT Animal cell line
(ATCC HTB 132 (MDA-MB468), as internal standard for **HER-2/neu** gene amplification; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Gene, animal
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ERBB2, of human; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT **Probes (nucleic acid)**
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**HER-2/neu** gene amplification using; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Prognosis
(**HER-2/neu** gene copy number in breast cancer; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Human
(**HER-2/neu** gene of; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Animal cell line
(SK-BR-3, as internal standard for **HER-2/neu** gene amplification; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Animal cell line
(T47D, as internal standard for **HER-2/neu** gene amplification; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Test kits
(breast cancer prognosis using; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Tumor markers
(breast cancer, **HER-2/neu** gene as; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Diagnosis
(cancer, breast, **HER-2/neu** gene as prognostic marker in; test kits for determining breast cancer prognosis by **HER-2/neu** gene amplification using fluorescent in-situ hybridization and control cell lines)
IT Mammary gland, neoplasm
(determining prognosis of patients with; test kits for determining breast cancer

prognosis by **HER-2/neu** gene amplification
using fluorescent in-situ hybridization and control cell lines)
IT Chromosome
(human 17, 17q11.2q12, **HER-2/neu** gene
mapping to; test kits for determining breast cancer prognosis by **HER**
-2/neu gene amplification using fluorescent in-situ
hybridization and control cell lines)
IT Nucleic acid hybridization
(in situ, fluorescence, **HER-2/neu** gene
amplification using; test kits for determining breast cancer prognosis by
HER-2/neu gene amplification using
fluorescent in-situ hybridization and control cell lines)
IT Gene dosage
(neu gene, determination of, in diagnosis and prognosis of breast cancer;
test
kits for determining breast cancer prognosis by **HER-2/**
neu gene amplification using fluorescent in-situ hybridization
and control cell lines)
IT Statistical analysis
(of **HER-2/neu** gene amplification in
breast tissue samples, for breast cancer prognosis determination; test kits
for
determining breast cancer prognosis by **HER-2/neu**
gene amplification using fluorescent in-situ hybridization and control
cell lines)
IT Genetic mapping
(of **HER-2/neu** gene, to human chromosome
17; test kits for determining breast cancer prognosis by **HER-**
2/neu gene amplification using fluorescent in-situ
hybridization and control cell lines)
IT Microscopes
(slides, breast cancer tissues samples fixed on; test kits for determining
breast cancer prognosis by **HER-2/neu** gene
amplification using fluorescent in-situ hybridization and control cell
lines)
IT 403638-47-1 403638-48-2
RL: PRP (Properties)
(unclaimed nucleotide sequence; test kits for determining breast cancer
prognosis by **HER-2/neu** gene amplification
using fluorescent in-situ hybridization and control cell lines)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 18 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:604867 CAPLUS
DOCUMENT NUMBER: 138:50447
TITLE: Evaluation of **HER-2/neu**
gene amplification and overexpression: comparison of
frequently used assay methods in a molecularly
characterized cohort of breast cancer specimens
AUTHOR(S): Press, Michael F.; Slamon, Dennis J.; Flom, Kerry J.;
Park, Jinha; Zhou, Jian-Yuan; Bernstein, Leslie
CORPORATE SOURCE: Breast Cancer Research Program of the Lee Breast
Center, Department of Pathology and Department of
Preventive Medicine, Norris Comprehensive Cancer
Center, University of Southern California, Los
Angeles, CA, USA
SOURCE: Journal of Clinical Oncology (2002), 20(14), 3095-3105
CODEN: JCONDN; ISSN: 0732-183X
PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 14 Aug 2002
AB One hundred seventeen breast cancer specimens with known **HER-2/neu** amplification and overexpression status were assayed with four different immunohistochem. assays and two different fluorescence in situ hybridization (FISH) assays. The accuracy of the FISH assays for **HER-2/neu** gene amplification was high, 97.4% for the Vysis PathVision assay and 95.7% for the the Ventana INFORM assay. The immunohistochem. assay with the highest accuracy for **HER-2/neu** overexpression was obtained with R60 polyclonal antibody (96.6%), followed by immunohistochem. assays performed with 10H8 monoclonal antibody (95.7%), the Ventana CB11 monoclonal antibody (89.7%), and the DAKO HercepTest (88.9%). Only the sensitivities, and therefore, overall accuracy, of the DAKO Herceptest and Ventana CB11 immunohistochem. assays were significantly different from the more sensitive FISH assay. Based on these findings, the FISH assays were highly accurate, with immunohistochem. assays performed with R60 and 10H8 nearly as accurate. The DAKO HercepTest and the Ventana CB11 immunohistochem. assay were statistically significantly different from the Vysis FISH assay in evaluating these previously characterized breast cancer specimens.
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 6, 13, 15
IT Centromeres
(-specific probes, used for mapping and estimating gene amplification; **HER-2/neu** gene amplification and expression in breast cancer)
IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ERBB2; **HER-2/neu** gene amplification and expression in breast cancer)
IT Human
Mammary gland, neoplasm
(**HER-2/neu** gene amplification and expression in breast cancer)
IT neu (receptor)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**HER-2/neu** gene amplification and expression in breast cancer)
IT **Probes (nucleic acid)**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**HER-2/neu** gene amplification and expression in breast cancer)
IT Chromosome
(human 17, chromosomal location of **HER-2/neu** gene; **HER-2/neu** gene amplification and expression in breast cancer)
IT Nucleic acid hybridization
(in situ, fluorescence, for **HER-2/neu** gene; **HER-2/neu** gene amplification and expression in breast cancer)
IT Genetic mapping
(of **HER-2/neu** gene; **HER-2/neu** gene amplification and expression in breast cancer)
IT Gene
(processes, gene amplification; **HER-2/neu** gene amplification and expression in breast cancer)

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:279180 CAPLUS
DOCUMENT NUMBER: 136:291216
TITLE: Electrochemical characterization of screen-printed carbonaceous electrodes for the determination of **peroxidase** activity in novel screen-printed flow-through modules
AUTHOR(S): Stiene, Matthias; Bilitewski, Ursula
CORPORATE SOURCE: German Research Centre for Biotechnology, Braunschweig, 38124, Germany
SOURCE: Analytical and Bioanalytical Chemistry (2002), 372(2), 240-247
CODEN: ABCNBP; ISSN: 1618-2642
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 15 Apr 2002
AB A novel totally screen-printed flow-through cell for immunoanal. is presented. It contained screen-printed carbonaceous electrodes, which allowed the determination of peroxidase activity through the electrochem. reduction of p-benzoquinone. As different electrode materials differ strongly in their electrochem. properties, electrodes resulting from various screen-printable carbonaceous pastes were characterized using the hydroquinone/p-benzoquinone redox couple. For most of the electrodes, cyclic voltammogram peak sepns. of between 550 and 670 mV were observed indicating only quasi-reversible electrochem. behavior. This was confirmed by variation of the peak separation with scan rate. Heterogeneous electron transfer rates of .apprx.0.5-1+10-3 cm s-1 and electrochem. activation energies of .apprx.20 kJ mol-1 were found. These flow-through cells were not only applied to electrochem. peroxidase activity detns. but also, in combination with a sep. detector, as affinity reactors. After biotinylation of screen-printed layers, streptavidin and then biotinylated peroxidase could be bound. However, as signals were only 10-20% of those obtained with a column filled with biotinylated glass beads, only the screen-printed electrochem. detector was applied to the detection of antibodies against the African Swine Fever Virus.
CC 9-7 (Biochemical Methods)
ST screen printed carbonaceous electrode detn **peroxidase** activity
IT Activation energy
Affinity
African swine fever virus
Biotinylation
Cyclic voltammetry
Electron transfer
Enzyme electrodes
Flow
Reduction, electrochemical
Screen printing
(electrochem. characterization of screen-printed carbonaceous electrodes for determination of **peroxidase** activity in novel screen-printed flow-through modules)
IT Antibodies and Immunoglobulins
RL: ANT (Analyte); ANST (Analytical study)
(electrochem. characterization of screen-printed carbonaceous electrodes for determination of **peroxidase** activity in novel screen-printed flow-through modules)

IT Glass beads
RL: DEV (Device component use); USES (Uses)
(electrochem. characterization of screen-printed carbonaceous electrodes for determination of **peroxidase** activity in novel screen-printed flow-through modules)
IT Electrodes
(glassy carbon; electrochem. characterization of screen-printed carbonaceous electrodes for determination of **peroxidase** activity in novel screen-printed flow-through modules)
IT 106-51-4, p-Benzoquinone, analysis **7722-84-1**, **Hydrogen peroxide**, analysis **9003-99-0**, **Peroxidase**
RL: ANT (Analyte); ANST (Analytical study)
(electrochem. characterization of screen-printed carbonaceous electrodes for determination of **peroxidase** activity in novel screen-printed flow-through modules)
IT **123-31-9**, **Hydroquinone**, analysis 9013-20-1, Streptavidin
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(electrochem. characterization of screen-printed carbonaceous electrodes for determination of **peroxidase** activity in novel screen-printed flow-through modules)
IT 1344-28-1, Aluminum oxide, uses 7440-44-0, Carbon, uses **7440-57-5**, Gold, uses 7782-42-5, Graphite, uses
RL: DEV (Device component use); **USES (Uses)**
(electrochem. characterization of screen-printed carbonaceous electrodes for determination of **peroxidase** activity in novel screen-printed flow-through modules)
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:122051 CAPLUS
DOCUMENT NUMBER: 137:243010
TITLE: Fluorescence in situ hybridization analysis of **HER-2/neu** in brushings of normal oral mucosa
AUTHOR(S): Paradiso, Angelo; Abatangelo, Marta; Piepoli, Sandra; Tommasi, Stefania; Xu, Jian-Ming; Caponio, Maria Angela; Marzullo, Franco; D'Auria, Carlo; Achille, Gaetano; Grammatica, Luciano
CORPORATE SOURCE: Clinical Experimental Oncology Laboratory, National Cancer Institute, Bari, Italy
SOURCE: Cancer Genetics and Cytogenetics (2002), 132(2), 141-144
CODEN: CGCYDF; ISSN: 0165-4608
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 15 Feb 2002
AB Oncogene alterations have been clearly demonstrated to be related to the carcinogenesis and progression of oral squamous cell carcinoma (OSCC). However, the anal. of these alterations for screening and early diagnostic purposes generally requires invasive techniques for surgical removal of pathol. epithelium. The aim of the present study was to assess the feasibility of fluorescence in situ hybridization (FISH) anal. of **HER-2/neu** amplification in oral mucosa brushings and to compare the **HER-2/neu** status with the history and smoking and drinking habits of healthy subjects. Cells obtained by centrifugation of oral brushings from 21 subjects (overall number of cells: 5125) were suspended in physiol. saline

and fixed onto two slides for cytol. evaluation and FISH anal. (dual-target, dual-color fluorescence assay) of the **HER-2/neu** gene and CEP17 centromere. A mean of 89.8% of the cells showed two **HER-2/neu** signals and a mean of 94% had two CEP17 signals at fluorescent microscopy. Finally, a mean of 96% of cells with **HER-2/neu** / CEP17 had a ratio equal to 1. No association between smoking and drinking habits, age and the **HER-2/neu** and CEP17 characteristics evaluated by FISH was found.

CC 3-6 (Biochemical Genetics)
Section cross-reference(s): 9, 13

IT **Probes (nucleic acid)**
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CEP17; fluorescence in situ hybridization anal. of **HER-2/neu** in brushings of normal oral mucosa)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(ERBB2; fluorescence in situ hybridization anal. of **HER-2/neu** in brushings of normal oral mucosa)

IT Health
Human
(fluorescence in situ hybridization anal. of **HER-2/neu** in brushings of normal oral mucosa)

IT Chromosome
(human 17, **HER-2/neu** gene maps to; fluorescence in situ hybridization anal. of **HER-2/neu** in brushings of normal oral mucosa)

IT Nucleic acid hybridization
(in situ, fluorescence; fluorescence in situ hybridization anal. of **HER-2/neu** in brushings of normal oral mucosa)

IT Mouth
(mucosa, brushings o; fluorescence in situ hybridization anal. of **HER-2/neu** in brushings of normal oral mucosa)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 21 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:64266 CAPLUS
DOCUMENT NUMBER: 134:97508
TITLE: Metal nanoshells for biosensing applications
INVENTOR(S): West, Jennifer L.; Sershen, Scott R.; Halas, Nancy L.; Oldenburg, Steven J.; Averitt, Richard D.
PATENT ASSIGNEE(S): Wm. Marsh Rice University, USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001006257	A1	20010125	WO 2000-US19375	20000714
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

CA 2377722	AA	20010125	CA 2000-2377722	20000714
EP 1210600	A1	20020605	EP 2000-952155	20000714
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003504642	T2	20030204	JP 2001-510843	20000714
PRIORITY APPLN. INFO.:			US 1999-144136P	P 19990716
			WO 2000-US19375	W 20000714

ED Entered STN: 26 Jan 2001

AB The present invention provides nanoshell particles ("nanoshells") for use in biosensing applications, along with their manner of making and methods of using the nanoshells for in vitro and in vivo detection of chemical and biol. analytes, preferably by surface enhanced Raman light scattering. The preferred particles have a non-conducting core and a metal shell surrounding the core. For given core and shell materials, the ratio of the thickness (i.e., radius) of the core to the thickness of the metal shell is determinative of the wavelength of maximum absorbance of the particle. By controlling the relative core and shell thicknesses, biosensing metal nanoshells are fabricated which absorb light at any desired wavelength across the UV to IR range of the electromagnetic spectrum. The surface of the particles are capable of inducing an enhanced SERS signal that is characteristic of an analyte of interest. In certain embodiments a biomol. is conjugated to the metal shell and the SERS signal of a conformational change or a reaction product is detected.

IC ICM G01N033-543
ICS G01N033-566; G01N033-551; G01N033-553; G01N015-06; G01N033-00; G01N033-48; G01N027-02; G01N027-06; G01N027-12

CC 9-5 (Biochemical Methods)

IT **Antibodies**
Antigens
Enzymes, uses
Metals, uses
Oligonucleotides
Polysaccharides, uses
Proteins, specific or class
RL: ARG (Analytical reagent use); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
(conjugates; **metal** nanoshells for **biosensing** applications)

IT **Antibodies**
Antigens
Oligonucleotides
Peptides, analysis
Polysaccharides, analysis
Proteins, general, analysis
RL: ANT (Analyte); ANST (Analytical study)
(metal nanoshells for biosensing applications)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:244546 CAPLUS
DOCUMENT NUMBER: 135:3482
TITLE: Scavenging of extracellular H2O2 by catalase inhibits the proliferation of **HER-2/Neu**-transformed Rat-1 fibroblasts through the induction of a stress response
AUTHOR(S): Preston, Thomas J.; Muller, William J.; Singh, Gurmit
CORPORATE SOURCE: Hamilton Regional Cancer Centre, Faculty of Health Sciences, McMaster University, Hamilton, ON, L8V 5C2, Can.

SOURCE: Journal of Biological Chemistry (2001), 276(12), 9558-9564
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 06 Apr 2001

AB High levels of reactive oxygen species (ROS) are associated with cytotoxicity. Alternatively, nontoxic levels of ROS like hydrogen peroxide (H2O2) can mediate the transmission of many intracellular signals, including those involved in growth and transformation. To identify pathways downstream of endogenous cellular H2O2 production, the response of Rat-1 fibroblasts exhibiting differential **HER-2/Neu** receptor tyrosine kinase activity to removal of physiol. H2O2 concns. was investigated. The proliferation of all cells was abolished by addition of the H2O2 scavenger catalase to the culture medium. **HER-2/Neu** activity was not significantly affected by catalase treatment, suggesting that the target(s) of the H2O2 signal lie downstream of the receptor in our model. ERK1/2 phosphorylation was blocked by catalase in fibroblasts expressing wild type Neu, however such a response did not occur in cells possessing activated mutant Neu. This indicates that the ERK1/2 response contributes little to the growth inhibition observed By contrast, JNK1 activity increased following the addition of catalase or H2O2, regardless of Neu activity or level of cell transformation. Phosphorylation of p38 MAPK was induced by H2O2 but not by catalase. These observations suggest that scavenging of H2O2 from the cellular environment blocks Rat-1 proliferation primarily through the activation of stress pathways.

CC 13-6 (Mammalian Biochemistry)
ST fibroblast proliferation **hydrogen peroxide** catalase Neu phosphorylation oxidn apoptosis
IT Phosphorylation, biological
(protein; scavenging of extracellular H2O2 by catalase inhibits the proliferation of **HER-2/Neu**-transformed Rat-1 fibroblasts through the induction of a stress response)
IT Apoptosis
Cell proliferation
Fibroblast
Oxidative stress, biological
Signal transduction, biological
(scavenging of extracellular H2O2 by catalase inhibits the proliferation of **HER-2/Neu**-transformed Rat-1 fibroblasts through the induction of a stress response)
IT 9001-05-2, Catalase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(scavenging of extracellular H2O2 by catalase inhibits the proliferation of **HER-2/Neu**-transformed Rat-1 fibroblasts through the induction of a stress response)
IT **7722-84-1**, **Hydrogen peroxide**, biological studies 137632-09-8 142243-02-5D, Mitogen-activated protein kinase, p38
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(scavenging of extracellular H2O2 by catalase inhibits the proliferation of **HER-2/Neu**-transformed Rat-1 fibroblasts through the induction of a stress response)
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:729505 CAPLUS
DOCUMENT NUMBER: 135:56565
TITLE: **HER-2/neu** oncogene amplification determined by fluorescence in situ hybridization
AUTHOR(S): Ross, Jeffrey S.; Sheehan, Christine E.; Fletcher, Jonathan A.
CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, Albany Medical College, Albany, NY, USA
SOURCE: Methods in Molecular Medicine (2001), 49, 93-104
CODEN: MMMEFN
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 16 Oct 2000
AB The proto-oncogene **HER-2/neu** (C-erbB-2) has been localized to chromosome 17q and encodes a transmembrane tyrosine kinase growth factor receptor. In addition to its association with disease outcome in gastrointestinal, pulmonary, genitourinary, and other neoplasms, amplification of the C-erbB-2 gene or over-expression of its protein has been identified in breast cancers. In this chapter, we describe the use of a fluorescence in situ hybridization (FISH) assay, for determining **HER-2/neu** (C-erbB-2) oncogene amplification in breast cancer, which is based on the Oncor INFORM® **HER-2/neu** Gene Detection System, and which uses a biotinylated probe.
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 14
IT Recombination, genetic
(amplification; **HER-2/neu** oncogene amplification determined by fluorescence in situ hybridization)
IT **Probes (nucleic acid)**
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(biotinylated; **HER-2/neu** oncogene amplification determined by fluorescence in situ hybridization)
IT Gene, animal
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(c-erbB2; **HER-2/neu** oncogene amplification determined by fluorescence in situ hybridization)
IT Nucleic acid hybridization
(in situ, fluorescence; **HER-2/neu** oncogene amplification determined by fluorescence in situ hybridization)
IT Diagnosis
(mol.; **HER-2/neu** oncogene amplification determined by fluorescence in situ hybridization)
IT Mammary gland
(neoplasm; **HER-2/neu** oncogene amplification determined by fluorescence in situ hybridization)
REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 24 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:900853 CAPLUS
DOCUMENT NUMBER: 134:39172
TITLE: Markers for prostate cancer

INVENTOR(S): Cordon-Cardo, Carlos; Scher, Howard I.; Koff, Andrew
PATENT ASSIGNEE(S): Sloan-Kettering Institute for Cancer Research, USA
SOURCE: PCT Int. Appl., 128 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000077258	A1	20001221	WO 2000-US16007	20000609
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2375228	AA	20001221	CA 2000-2375228	20000609
EP 1208232	A1	20020529	EP 2000-938256	20000609
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
EP 1512755	A2	20050309	EP 2004-23000	20000609
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.:

US 1999-329917	A2	19990610
EP 2000-938256	A3	20000609
WO 2000-US16007	W	20000609

ED Entered STN: 22 Dec 2000

AB This invention provides a method for determining the aggressiveness of a prostate carcinoma comprising: (a) obtaining a sample of the prostate carcinoma; and (b) detecting the presence of p27 protein in the prostate carcinoma, the absence of p27 indicating that the prostate carcinoma is aggressive. This invention also provides a method for diagnosing a benign prostate hyperplasia comprising: (a) obtaining an appropriate sample of the hyperplasia; and (b) detecting the presence of the p27 RNA, a decrease of the p27 RNA indicating that the hyperplasia is benign. This invention provides various uses of p27 in prostate cancer. Finally, this invention also provides different marker for prostate cancer. To determine whether loss of p27 expression was a common feature in prostate cancer, 74 prostate carcinomas from primary and metastatic sites, representing different hormone sensitivities were studied by immunohistochem. staining and in situ hybridization. Other markers such as cyclin D1, cyclin-dependent kinase inhibitor p16, and **Her-2/neu** were also studied.

IC ICM C12Q001-68
ICS C07H021-04

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 3, 14, 63

IT Antibodies
Probes (nucleic acid)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(markers for prostate cancer)

IT Androgens
RL: MSC (Miscellaneous)
(prostate cancer dependent on, treatment with antibody to **Her-2/neu**; markers for prostate cancer)

IT 1672-46-4D, Digoxigenin, conjugates with **nucleic acid probes**
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(markers for prostate cancer)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 25 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:277876 CAPLUS
DOCUMENT NUMBER: 132:313678
TITLE: Metal salt particle-adsorbed adjuvant systems and vaccines
INVENTOR(S): Garcon, Nathalie
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000023105	A2	20000427	WO 1999-EP7764	19991008
WO 2000023105	A3	20000803		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2347099	AA	20000427	CA 1999-2347099	19991008
BR 9915545	A	20010814	BR 1999-15545	19991008
EP 1126876	A2	20010829	EP 1999-970607	19991008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101055	T2	20010921	TR 2001-200101055	19991008
AU 750587	B2	20020725	AU 2000-11518	19991008
NZ 511113	A	20020927	NZ 1999-511113	19991008
JP 2003519084	T2	20030617	JP 2000-576878	19991008
EP 1588714	A2	20051026	EP 2005-76368	19991008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY				
TW 586936	B	20040511	TW 1999-88117873	19991015
NO 2001001801	A	20010530	NO 2001-1801	20010409
ZA 2001002954	A	20020520	ZA 2001-2954	20010410

PRIORITY APPLN. INFO.:		
	GB 1998-22703	A 19981016
	GB 1998-22709	A 19981016
	GB 1998-22712	A 19981016
	EP 1999-970607	A3 19991008
	WO 1999-EP7764	W 19991008

ED Entered STN: 28 Apr 2000
AB The present invention provides vaccine and adjuvant formulations comprising an immunostimulant and a metal salt. The immunostimulant is adsorbed onto a particle of metal salt (e.g. aluminum hydroxide or phosphate) and the resulting particle is essentially devoid of antigen.
IC ICM A61K039-39
ICS A61K039-00; A61K039-29; A61K039-015; A61P031-12; A61P031-04; A61P033-06; A61P035-00; A61P037-08
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 15

IT Antigens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**Her-2 neu**; metal salt particle-adsorbed adjuvant systems and vaccines)
IT 7429-90-5D, Aluminum, salts, biological studies **7439-89-6D**, Iron, salts, biological studies 7440-41-7D, Beryllium, salts, biological studies 7440-45-1D, Cerium, salts, biological studies 7440-47-3D, Chromium, salts, biological studies 7440-66-6D, Zinc, salts, biological studies 7440-70-2D, Calcium, salts, biological studies 7784-30-7, Aluminum phosphate 21645-51-2, Aluminum hydroxide, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); **USES (Uses)**
(metal salt particle-adsorbed adjuvant systems and vaccines)

L84 ANSWER 26 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:435585 CAPLUS
DOCUMENT NUMBER: 131:56122
TITLE: Metal oxide matrix biosensors
INVENTOR(S): Rauh, R. David
PATENT ASSIGNEE(S): EIC Laboratories, Inc., USA
SOURCE: U.S., 17 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5922183	A	19990713	US 1997-880615	19970623
PRIORITY APPLN. INFO.:			US 1997-880615	19970623

ED Entered STN: 15 Jul 1999
AB A thin film matrix for biomols., suitable for forming electrochem. and biosensors comprising a general class of materials known as hydrous metal oxides which are also conductive or semiconductive of electrons and which have been shown to have excellent stability against dissoln. or irreversible reaction in aqueous and nonaq. solns. The composites are bifunctional, providing both amperometric and potentiometric (pH) transduction. The thin film composites of the oxides and biol. mols. such as enzymes, antibodies, antigens and DNA strands can be used for both amperometric and potentiometric sensing. Hydrous Ir oxide is the preferred matrix embodiment, but conducting or semiconducting oxides, of Ru, Pd, Pt, Zr, Ti and Rh and mixts. thereof have similar features. The hydrous oxides are very stable against oxidation damage.
IC ICM G01N027-26
INCL 204403000
CC 9-1 (Biochemical Methods)
IT **Antibodies**
Antigens
DNA
Enzymes, uses
Oxides (inorganic), uses
RL: DEV (Device component use); USES (Uses)
(**metal** oxide matrix **biosensors**)
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 27 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:236198 CAPLUS
DOCUMENT NUMBER: 131:179403
TITLE: Influence of chemotherapy on the expression of p53, **HER-2/neu** and proliferation markers in ovarian cancer
AUTHOR(S): Nijman, Hans W.; Kenemans, Peter; Poort-Keesom, Ria J. J.; Verstraeten, Rob A.; Mensdorff-Pouilly, Sylvia; Verheijen, Rene H. M.; Melief, Cornelis J. M.; Hilgers, Jo; Meijer, Chris J. L. M.
CORPORATE SOURCE: Department of Obstetrics and Gynaecology, Academic Hospital, Vrije Universiteit Amsterdam, Amsterdam, Neth.
SOURCE: European Journal of Obstetrics & Gynecology and Reproductive Biology (1999), 83(2), 201-206
CODEN: EOGRAL; ISSN: 0301-2115
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 16 Apr 1999
AB Objective: Mutated p53 and **HER-2/neu** play a role in the etiol. of ovarian cancer. It is important to know whether the expression of these proteins is affected by platinum-containing chemotherapy. Study design: Together with the cell proliferation markers Ki-67 and PCNA, the expression of p53 and **HER-2/neu** was assessed before and after chemotherapy. Paraffin-embedded tumor sections from 20 patients with ovarian cancer and four patients with benign disorders of the ovaries (controls) were analyzed. The expression of p53 was determined by the antibodies DO-1 and BP53-12. In addition to **HER-2/neu** and PCNA specific antibodies, MIB-1 was used to detect Ki-67. Results: The expression of all markers was higher in ovarian cancer patients than in non-malignant controls. MIB-1 showed a significant increase of expression after chemotherapy. **HER-2/neu**, p53 and PCNA also showed a clear increase after treatment, but this was not statistically significant. **HER-2/neu** is of prognostic relevance with respect to the response to chemotherapy and survival. Conclusion: The different markers tested all increase after chemotherapy, but the differences are not statistically significant. Low **HER-2/neu** expression correlates with good outcome at second look.
CC 1-6 (Pharmacology)
Section cross-reference(s): 14
IT Ovary, neoplasm
(influence of platinum-containing chemotherapy on expression of p53, **HER-2/neu** and proliferation markers in ovarian cancer)
IT Ki-67 antigen
Proliferating cell nuclear antigen
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(influence of platinum-containing chemotherapy on expression of p53, **HER-2/neu** and proliferation markers in ovarian cancer)
IT neu (receptor)
p53 (protein)
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(influence of platinum-containing chemotherapy on expression of p53, **HER-2/neu** and proliferation markers in

ovarian cancer)
IT Ovary, neoplasm
Ovary, neoplasm
(inhibitors; influence of platinum-containing chemotherapy on expression of p53, **HER-2/neu** and proliferation markers in ovarian cancer)
IT Antitumor agents
Antitumor agents
(ovary; influence of platinum-containing chemotherapy on expression of p53, **HER-2/neu** and proliferation markers in ovarian cancer)
IT **7440-06-4D**, Platinum, compds., biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); **USES (Uses)**
(influence of platinum-containing chemotherapy on expression of p53, **HER-2/neu** and proliferation markers in ovarian cancer)
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:52824 CAPLUS
DOCUMENT NUMBER: 130:263969
TITLE: Artificial metalloenzymes based on protein cavities: exploring the effect of altering the metal ligand attachment position by site directed mutagenesis
AUTHOR(S): Davies, Ronald R.; Kuang, Hao; Qi, Dongfeng; Mazhary, Aram; Mayaan, Evelyn; Distefano, Mark D.
CORPORATE SOURCE: Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (1999), 9(1), 79-84
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 26 Jan 1999
AB In an effort to construct catalysts with enzyme-like properties, we are employing a small, cavity-containing protein as a scaffold for the attachment of catalytic groups. In earlier work we demonstrated that a phenanthroline ligand could be introduced into the cavity of the protein ALBP (adipocyte lipid binding protein) and used to catalyze ester hydrolysis. To examine the effect of positioning the phenanthroline catalyst at different locations within the protein cavity of a related protein, IFABP (intestinal fatty acid-binding protein), three new constructs - Phen60, Phen72 and Phen104 - were prepared Each new conjugate was characterized by UV/vis spectroscopy, fluorescence spectroscopy, guanidine hydrochloride denaturation, gel filtration chromatog., and CD spectroscopy to confirm the preparation of the desired construct. Anal. of reactions containing Ala-OiPr showed that Phen60 catalyzed ester hydrolysis with less selectivity than ALBP-Phen while Phen72 promoted this same reaction with higher selectivity. Reactions with Tyr-OMe were catalyzed with higher selectivity by Phen60 and more rapidly by Phen104. These results demonstrate that both the rates and selectivities of hydrolysis reactions catalyzed by these constructs are dependent on the precise site of attachment of the metal ligand within the protein cavity.
CC 7-5 (Enzymes)
IT **Enzyme** functional sites
(active; exploring effect of **altering metal** ligand

attachment position by site directed mutagenesis artificial metalloenzymes based on fatty acid-binding protein)

IT **Enzymes**, preparation
RL: BPN (Biosynthetic preparation); CAT (Catalyst use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthetic; exploring effect of **altering metal** ligand attachment position by site directed mutagenesis artificial metalloenzymes based on fatty acid-binding protein)

IT **7440-50-8DP**, Copper, complex with phenanthroline-IFABP (intestinal fatty acid-binding protein) mutants, biological studies
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(preparation and metalation of I-FABP (intestinal fatty acid-binding protein)-phenanthroline conjugates)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:682565 CAPLUS
DOCUMENT NUMBER: 129:299013
TITLE: Assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene
INVENTOR(S): Ross, Jeffrey S.; Muraca, Patrick J.
PATENT ASSIGNEE(S): Albany Medical College, USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9845479	A1	19981015	WO 1998-US6621		19980403
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
US 5994071	A	19991130	US 1997-832745		19970404
CA 2285929	AA	19981015	CA 1998-2285929		19980403
AU 9869494	A1	19981030	AU 1998-69494		19980403
EP 975803	A1	20000202	EP 1998-915267		19980403
R: CH, DE, FR, GB, LI					
US 2002076695	A1	20020620	US 1998-152934		19980914
PRIORITY APPLN. INFO.:			US 1997-832745	A	19970404
			WO 1998-US6621	W	19980403
			US 1998-88417	A2	19980601

ED Entered STN: 28 Oct 1998
AB A method of determining the severity of prostatic cancer includes measuring the level of amplification of the **HER-2/neu** gene in a sample of prostate tissue by fluorescence in-situ hybridization and comparing the measured level of amplification of the **HER-2/neu** gene in the sample with the level of **HER**

-2/**neu** gene in normal prostate tissue. A method for determining treatment for a patient afflicted with prostate cancer includes determining whether the number of copies of **HER-2/neu** gene in prostate cells from the patient exceeds four by using fluorescence in-situ hybridization and aggressively treating such patient having prostate cells with five or more copies of the **HER-2/neu** gene.

IC ICM C12Q001-68
ICS C12P019-34; C07H021-02; C07H021-04

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9, 15

IT Recombination, genetic
(amplification; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Gene dosage
Immunoassay
Prognosis
(assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Gene, animal
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); ANST (Analytical study); BIOL (Biological study)
(c-erbB2; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Diagnosis
(cancer; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Neoplasm
(diagnosis; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT **Probes (nucleic acid)**
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(digoxigenin or biotin-labeled; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Antibodies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(fluorophore-labeled; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Diagnosis
(genetic; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(green fluorescent, antibody labeled with; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Nucleic acid hybridization
(in situ, fluorescence; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT Prostate gland
(neoplasm; assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

IT 58-85-5D, Biotin, DNA probe labeled with 1672-46-4D, Digoxigenin, DNA

probe labeled with 2321-07-5D, Fluorescein, antibody labeled with 70281-37-7D, Tetramethylrhodamine, antibody labeled with 82354-19-6D, Texas Red, antibody labeled with 117939-97-6D, antibody labeled with 146368-15-2D, Cy 5, antibody labeled with 146397-20-8D, Cy3, antibody labeled with
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(assessing prostate cancer based on measuring amplification of the **HER-2/neu**/c-erbB2 gene)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L84 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:428608 CAPLUS
DOCUMENT NUMBER: 121:28608
TITLE: Methods for the detection of chromosome structural abnormalities by (in situ) hybridization to fixed tissue
INVENTOR(S): Wang, Mary G.; George, Albert L., Jr.; Light, Elizabeth S.
PATENT ASSIGNEE(S): Oncor, Inc., USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9409022	A1	19940428	WO 1993-US9658	19931008
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9453555	A1	19940509	AU 1994-53555	19931008
US 5856089	A	19990105	US 1994-279315	19940722
PRIORITY APPLN. INFO.:			US 1992-958907 A	19921009
			WO 1993-US9658 W	19931008

ED Entered STN: 23 Jul 1994
AB The present invention is directed to in situ hybridization methods using nucleic acid probes for single copy sequences for detecting chromosomal structural abnormalities in fixed tissue obtained from a patient suspected of having a chromosomal structural abnormality. The method comprises (1) obtaining a fixed tissue sample from patient, (2) digesting the fixed sample with an effective amount of proteinase, (3) performing in situ hybridization, and (4) comparing with a normal control and detecting chromosome structural abnormality. With the claimed method, neuroblastoma and bladder carcinoma were detected with N-myc and chromosome 15 probe, and breast carcinoma was determined with **HER-2/neu** probe.
IC ICM C07H021-02
ICS C07H021-04; C12Q001-68; C12P019-34
CC 3-1 (Biochemical Genetics)
IT 9001-78-9D, Alkaline phosphatase, conjugates with avidin or antibody **9003-99-0**, **Peroxidase**
RL: USES (Uses)
(probe conjugates binding to, for chromosome structural abnormality determination by DNA hybridization)

L84 ANSWER 31 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:229847 BIOSIS
DOCUMENT NUMBER: PREV200400232855
TITLE: Purification of the plant alternative oxidase from Arum maculatum: Measurement, stability and metal requirement.
AUTHOR(S): Affourtit, Charles [Reprint Author]; Moore, Anthony L.
CORPORATE SOURCE: Department of Biochemistry, School of Life Sciences, University of Sussex, Falmer, Brighton, BN1 9QG, UK C.Affourtit@sussex.ac.uk
SOURCE: Biochimica et Biophysica Acta, (15 February 2004) Vol. 1608, No. 2-3, pp. 181-189. print. ISSN: 0006-3002 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 28 Apr 2004
Last Updated on STN: 28 Apr 2004

AB We have purified plant alternative oxidase (AOX) protein from the spadices of thermogenic Arum maculatum (cuckoo pint) to virtual homogeneity. The obtained enzyme fraction exhibits a high specific activity, consuming on average 32 mumol oxygen min-1 mg-1, which is completely stable for at least 6 months when the sample is stored at -70degreeC. This exceptionally stable AOX activity is inhibited approximately 90% (I50apprx10 muM) by 8-hydroxyquinoline (8-OHQ) and also, although to a lesser extent, by other metal chelators such as o-phenanthroline, alpha,alpha'-dipyridyl and EDTA. When inhibited by 8-OHQ, AOX activity is fully restored upon addition of 1.2 mM ferric iron, but neither ferrous iron nor manganese has any effect, whilst zinc decreases activity even further. Furthermore, we have developed a spectrophotometric assay to measure AOX activity in an accurate manner, which will facilitate future steady state and transient kinetic studies. The reliability of this assay is evidenced by retained stability of AOX protein during the course of the reaction, reproducibility of the measured initial rates, an observed 2:1 duroquinol-oxygen stoichiometry and by the fact that, in absolute terms, the measured rates of duroquinone formation and duroquinol disappearance are identical.

IT Major Concepts
Enzymology (Biochemistry and Molecular Biophysics)
IT Chemicals & Biochemicals
enzymes; **metals**; plant **alternative** oxidase: activities, analysis, functions, measurement, **metal** requirement, properties, purification, stability; proteins
IT Methods & Equipment
protein purification methods: laboratory techniques
IT Miscellaneous Descriptors
enzyme activation
ORGN Classifier
Araceae 25230
Super Taxa
Monocotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Arum maculatum (species)
Taxa Notes
Angiosperms, Monocots, Plants, Spermatophytes, Vascular Plants
ORGN Classifier
Plantae 11000
Super Taxa
Plantae
Organism Name

plant (common)
Taxa Notes
Plants

L84 ANSWER 32 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:80628 BIOSIS
DOCUMENT NUMBER: PREV200400082517
TITLE: Enzymatic deposition and alteration of metals.
AUTHOR(S): Hainfeld, James F. [Inventor, Reprint Author]
CORPORATE SOURCE: Shoreham, NY, USA
ASSIGNEE: Nanoprobes, Yaphank, NY, USA
PATENT INFORMATION: US 6670113 20031230
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec 30 2003) Vol. 1277, No. 5. http://www.uspto.gov/web/menu/patdata.html. e-file. ISSN: 0098-1133 (ISSN print).
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Feb 2004
Last Updated on STN: 4 Feb 2004
AB Disclosed are methods and materials for utilizing enzymes to act on metal ions in solution so that the ions are reduced to metal. Additionally, disclosed is how to use enzymes to accumulate metal particles. The alteration of metal particles by enzymes interacting with the organic shell of the particles is also described. These methods enable a wide range of applications including sensitive detection of genes and proteins, use as probes for microscopy, nanofabrication, biosensors, and remediation.
IT Major Concepts
Methods and Techniques
IT Chemicals & Biochemicals
metal particles
IT Methods & Equipment
enzymatic deposition methods: laboratory techniques; **enzymatic metal alteration** methods: laboratory techniques

L84 ANSWER 33 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:185462 BIOSIS
DOCUMENT NUMBER: PREV200200185462
TITLE: **Her-2/neu** oncogene amplification in clinically localised prostate cancer.
AUTHOR(S): Oxley, J. D. [Reprint author]; Winkler, M. H.; Gillatt, D. A.; Peat, D. S.
CORPORATE SOURCE: Department of Cellular Pathology, Southmead Hospital, Westbury on Trym, Bristol, BS10 5NB, UK jon@jon-oxley.freeserve.co.uk
SOURCE: Journal of Clinical Pathology (London), (February, 2002) Vol. 55, No. 2, pp. 118-120. print. CODEN: JCPAAK. ISSN: 0021-9746.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Mar 2002
Last Updated on STN: 6 Mar 2002
AB Aim: To examine the incidence of **Her-2/neu** oncogene amplification in clinically localised prostate cancer using in situ hybridisation. Methods: One hundred and seventeen patients, who had undergone radical prostatectomy, were identified and in situ hybridisation

was performed on formalin fixed, paraffin wax embedded tissue using the Quantum Appligene **probe** for **Her-2/neu.** The enzyme **peroxidase** was used to detect the **probe** because this enabled a permanent record to be kept. Tumours in which there were five or more signals in each nucleus in > 20% of the tumour cells were considered to have a significantly increased copy number. A serial section from these tumours was then hybridised with the chromosome 17alpha satellite **probe.** The ratio of the percentage of cells showing an increase in **Her-2/neu** copy number to the number showing polysomy for chromosome 17 was calculated. A ratio above 2 was considered amplified. Results: Biochemical recurrence occurred in 50 (43%) patients and 24 (21%) had clinical recurrence. In situ hybridisation for **Her-2/neu** was accessible in 114 (97%) patients. A significant increase in copy number was present in two patients (1.75%), but chromosome 17 hybridisation showed that the increase was the result of polysomy rather than true amplification. Both these patients had a Gleason score of 7 and stage T3; they also had recurrent clinical disease with distal metastasis within two and 19 months. Conclusions: Increased **Her-2/neu** oncogene copy number appears to be rare in clinically localised prostatic adenocarcinoma and is related to chromosome 17 polysomy rather than true amplification. As a result, it would not be a useful biomarker for identifying those patients who will have recurrences after radical prostatectomy.

IT Major Concepts
Molecular Genetics (Biochemistry and Molecular Biophysics); Tumor Biology

IT Diseases
localized prostate cancer: neoplastic disease, reproductive system disease/male, urologic disease
Prostatic Neoplasms (MeSH)

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: male, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

GEN human **Her-2-neu** oncogene (Hominidae):
localized tumor amplification, tumor development role

L84 ANSWER 34 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:496098 BIOSIS
DOCUMENT NUMBER: PREV200100496098
TITLE: Chromogenic in situ hybridization analysis of **HER-2/neu** status in breast carcinoma: Application in screening of patients for trastuzumab (Herceptin(R)) therapy.
AUTHOR(S): Kumamoto, Hiroyuki [Reprint author]; Sasano, Hironobu; Taniguchi, Takahiro; Suzuki, Takashi; Moriya, Takuya; Ichinohasama, Ryo
CORPORATE SOURCE: Division of Oral Pathology, Department of Oral Medicine and Bioregulation, Graduate School of Dentistry, Tohoku University, 4-1 Seiryo-machi, Aoba-ku, Sendai, 980-8575, Japan
kumamoto@mail.cc.tohoku.ac.jp
SOURCE: Pathology International, (August, 2001) Vol. 51, No. 8, pp. 579-584. print.

ISSN: 1320-5463.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Oct 2001
Last Updated on STN: 23 Feb 2002

AB Evaluation of **HER-2/neu** status is important in the management of patients with breast carcinoma, especially in determining the possible application of trastuzumab, a humanized anti-**HER-2/neu** monoclonal antibody. Chromogenic in situ hybridization (CISH) detection of the **HER-2/neu** oncogene is a newly developed in situ hybridization method that utilizes a robust and unique-sequence DNA **probe** labeled with digoxygenin, and sequential incubations with antidigoxygenin fluorescein, antifluorescein **peroxidase**, and diaminobenzidine. In this study, we examined 20 archival specimens of human breast carcinoma using CISH, and we correlated findings with immunohistochemical findings for **HER-2/neu**. **HER-2/neu** immunohistochemistry was carried out with HercepTestTM, a standardized immunohistochemical examination system for **HER-2/neu** overexpression in surgical pathology specimens. CISH analysis could be done in 18 out of 20 cases examined. Gene copy signals for **HER-2/neu** were recognized as intranuclear brown dots in both neoplastic and non-neoplastic cells. Seven carcinomas showed an increased number or size of signals and were interpreted as being positive for **HER-2/neu** amplification. Eight cases were positive with the HercepTestTM. Seven out of eight carcinoma cases found to overexpress immunoreactive **HER-2/neu** also demonstrated **HER-2/neu** gene amplification following CISH analysis. There was a significant correlation between immunohistochemical and CISH analyses ($P<0.001$). We found that CISH was a specific, sensitive and easily applicable method for the detection of **HER-2/neu** gene amplification, which may be used together with immunohistochemical examination for the evaluation of patients with breast carcinoma.

IT Major Concepts
Molecular Genetics (Biochemistry and Molecular Biophysics); Oncology (Human Medicine, Medical Sciences); Pharmacology

IT Diseases
breast carcinoma: neoplastic disease, reproductive system disease/female, drug treatment screening, gene expression status
Breast Neoplasms (MeSH); Carcinoma (MeSH)

IT Chemicals & Biochemicals
chromogenic in-situ hybridization: genetic method; trastuzumab [Herceptin]: antineoplastic-drug, patient screening

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: female, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 180288-69-1 (trastuzumab)
180288-69-1 (Herceptin)

GEN human **HER-2-neu** oncogene (Hominidae): drug treatment screening application, tumor expression status analysis

L84 ANSWER 35 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:591751 BIOSIS
DOCUMENT NUMBER: PREV200200591751
TITLE: Interstitial lung disease induced by exogenous agents: Factors governing susceptibility.
AUTHOR(S): Nemery, B. [Reprint author]; Bast, A.; Behr, J.; Borm, P. J. A.; Bourke, S. J.; Camus, Ph.; De Vuyst, P.; Jansen, H. M.; Kinnula, V. L.; Lison, D.; Pelkonen, O.; Saltini, C.
CORPORATE SOURCE: Laboratorium voor Pneumologie (Longtoxicologie), K.U. Leuven, Herestraat 49, B-3000, Leuven, Belgium
SOURCE: European Respiratory Journal, (September, 2001) Vol. 18, No. Supplement 32, pp. 30s-42s. print.
CODEN: ERJOEI. ISSN: 0903-1936.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002

AB The purpose of this review is to describe the present state of knowledge regarding host susceptibility factors that may determine the occurrence, development and severity of interstitial lung disease (ILD) caused by exogenous agents. First, host susceptibility may pertain to differences in the delivery and/or persistence of the noxious agent in the lung. The deposition and clearance of inhaled particles or fibres may vary depending on innate anatomical or physiological characteristics, and on acquired changes, such as nasal disease or smoking-induced alterations. Genetically- or environmentally-induced interindividual differences in the expression of pulmonary biotransformation enzymes may form the basis for, or contribute to the risk of, drug-induced interstitial lung disease. Secondly, there are genetic and acquired variations in various enzymatic and nonenzymatic defence systems that protect cells and tissues against oxidative stress, which is often involved in the pathogenesis of interstitial lung disease caused by particles, fibres, metals, organic agents and drugs. Thirdly, the occurrence of immunological sensitization is dependent on both genetic and environmental factors. This has been demonstrated in chronic beryllium lung disease and in hypersensitivity pneumonitis. Fourthly, the propensity of individuals to develop particular types of inflammation, such as granulomas, is probably under genetic control. The regulation and resolution of inflammation and fibrogenesis caused by dust particles are also partly determined by genetic factors, involving cytokine networks and growth factors. In conclusion, although the issue of genetics pervades the entire discussion of host susceptibility, genes are not the only determinants of health and disease. Environmental factors may be equally important in shaping host susceptibility. Therefore, research must be focused on both the genetic bases and the environmental determinants of interstitial lung disease, in order to provide mechanism-based prevention strategies, early detection of, and improved therapy for these conditions.

IT Major Concepts
Pulmonary Medicine (Human Medicine, Medical Sciences); Toxicology
IT Parts, Structures, & Systems of Organisms
lung: respiratory system
IT Diseases
chronic beryllium lung disease: respiratory system disease, toxicity
IT Diseases
interstitial lung disease: respiratory system disease, toxicity, drug-induced, etiology
Lung Diseases, Interstitial (MeSH)
IT Diseases
nasal disease: respiratory system disease
IT Chemicals & Biochemicals
beryllium: toxin; cytokine; drug: pharmaceutical, toxicity; fiber:

toxicity; growth factor; inhaled particle: **deposition**; **metal**: toxin; organic agent: toxin; pulmonary biotransformation **enzyme**: expression

IT Miscellaneous Descriptors
disease susceptibility; oxidative stress; smoking

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 7440-41-7 (beryllium)

L84 ANSWER 36 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:70020 BIOSIS
DOCUMENT NUMBER: PREV200100070020
TITLE: Chromogenic in situ hybridization (CISH): A practical new alternative to FISH to detect **HER-2/neu** amplification in archival breast cancer samples.
AUTHOR(S): Tanner, M. M. [Reprint author]; Gancberg, D.; DiLeo, A.; Larsimont, D.; Rouas, G.; Piccart, M.; Isola, J. J. [Reprint author]
CORPORATE SOURCE: Institute of Medical Technology, Univ Tampere, Tampere, Finland
SOURCE: Breast Cancer Research and Treatment, (November, 2000) Vol. 64, No. 1, pp. 100. print.
Meeting Info.: 23rd Annual San Antonio Breast Cancer Symposium. San antonio, Texas, USA. December 06-09, 2000. Cancer Therapy and Research Center Research Foundation.
CODEN: BCTRD6. ISSN: 0167-6806.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Feb 2001
Last Updated on STN: 12 Feb 2002

IT Major Concepts
Biochemistry and Molecular Biophysics; Molecular Genetics (Biochemistry and Molecular Biophysics); Methods and Techniques; Tumor Biology

IT Parts, Structures, & Systems of Organisms
breast: reproductive system; tumor tissue, archival formalin-fixed, paraffin-embedded

IT Diseases
breast cancer: neoplastic disease, reproductive system disease/female Breast Neoplasms (MeSH)

IT Chemicals & Biochemicals
CB-11 monoclonal antibody; **HER-2/neu** [human epidermal growth factor receptor-2/neu]; **HER-2/neu probe** [human epidermal growth factor receptor-2/neu **probe**]: digoxigenin-labelled; anti-digoxygenin-fluorescein [anti-digoxigenin-fluorescein]; anti-fluorescein-**peroxidase**; diaminobenzidine; gene copy cluster: intranuclear, **peroxidase**-positive; trastuzumab [Herceptin]: antineoplastic-drug

IT Methods & Equipment
brightfield microscopy: microscopy method; chromogenic in situ hybridization [CISH]: bioassay method, histochemical method;

fluorescence in-situ hybridization [FISH]: bioassay method, histochemical method; p185 immunohistochemistry: bioassay method, histochemical method, immunologic method

IT Miscellaneous Descriptors
Meeting Abstract

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 66836-18-8 (diaminobenzidine)
180288-69-1 (trastuzumab)
180288-69-1 (Herceptin)

GEN **HER-2/neu** gene [human epidermal growth factor receptor-2/neu gene] (Hominidae): amplification, oncogene

L84 ANSWER 37 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:301993 BIOSIS
DOCUMENT NUMBER: PREV199799601196
TITLE: Antioxidant responses to simulated acid rain and heavy metal deposition in birch seedlings.
AUTHOR(S): Korcheva, Julia [Reprint author]; Roy, Sashwati; Vranjic, John A.; Haukioja, Erkki [Reprint author]; Hughes, Patrick R.; Hanninen, Osmo
CORPORATE SOURCE: Lab. Ecological Zool., Dep. Biol., Univ. Turku, FIN-20014 Turku, Finland
SOURCE: Environmental Pollution, (1997) Vol. 95, No. 2, pp. 249-258.
CODEN: ENPOEK. ISSN: 0269-7491.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Jul 1997
Last Updated on STN: 9 Jul 1997

AB This study measured the responses of different antioxidants in 2-year-old birch (Betula pendula Roth) seedlings subjected to simulated acid rain (pH 4.0) and heavy metals (Cu/Ni), applied alone or in combination for 2 months. The applied concentrations of pollutants did not significantly affect seedling biomass or total glutathione levels. Acid rain alone increased superoxide dismutase (SOD) activity both in leaves and roots, while heavy metals alone inhibited SOD activity in roots. Both acid rain and heavy metals applied singly increased ascorbate peroxidase (APX) and guaiacol peroxidase (GPX) activities in leaves but decreased activities in roots. In contrast, acid rain and heavy metal treatments increased glutathione reductase (GR) activity in roots but not in leaves. Spraying birch seedlings with a mixture of acid rain and heavy metals increased SOD, APX and GPX activities in leaves and GR activity in roots. However, the effects of mixed pollutants on enzyme activities usually were less than the summed effects of individual pollutants. Enzyme responses also depended on where pollutants were applied: spraying pollutants onto the shoots initiated higher responses in SOD, APX and GPX than did application to the soil surface, while the opposite was true for GR.

IT Major Concepts
Biochemistry and Molecular Biophysics; Enzymology (Biochemistry and Molecular Biophysics); Pollution Assessment Control and Management

IT Chemicals & Biochemicals
COPPER; NICKEL; GLUTATHIONE; ASCORBATE PEROXIDASE; GUAIACOL PEROXIDASE;

GLUTATHIONE REDUCTASE
IT Miscellaneous Descriptors
ACID RAIN; ANTIOXIDANT; ASCORBATE PEROXIDASE; COPPER; **DEPOSITION**; **ENZYMOLOGY**; GLUTATHIONE; GLUTATHIONE REDUCTASE; GUAIACOL PEROXIDASE; HEAVY **METAL**; NICKEL; POLLUTION; SEEDLING
ORGN Classifier
Betulaceae 25645
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
birch
Betula pendula
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants
RN 7440-50-8 (COPPER)
7440-02-0 (NICKEL)
70-18-8 (GLUTATHIONE)
72906-87-7 (ASCORBATE PEROXIDASE)
9003-99-0 (GUAIACOL PEROXIDASE)
9001-48-3 (GLUTATHIONE REDUCTASE)

L84 ANSWER 38 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1996:323333 BIOSIS
DOCUMENT NUMBER: PREV199699045689
TITLE: Bromoperoxidase in Corallina pilulifera is regulated by its vanadate content.
AUTHOR(S): Itoh, Nobuya; Sasaki, Hiroe; Ohsawa, Noboru; Shibata, Masaru S.; Miura, Jun'ichiro
CORPORATE SOURCE: Dep. Appl. Chem. Biotechnol., Fac. Eng., Fukui Univ., Bunkyo 3-9-1, Fukui 910, Japan
SOURCE: Phytochemistry (Oxford), (1996) Vol. 42, No. 2, pp. 277-281.
CODEN: PYTCAS. ISSN: 0031-9422.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 11 Jul 1996
Last Updated on STN: 11 Jul 1996
AB Seasonal changes in bromoperoxidase activity in coralline algae (Corallinaceae) are responsible for the production of volatile halogenated compounds. SDS-polyacrylamide gel electrophoresis (PAGE) of a crude protein extract showed that the concentration of this enzyme was almost constant throughout the year. Therefore, the enzyme activity in vivo changed seasonally due to a structural alteration. To elucidate this, the metal content of this enzyme at different states of activity was measured. The results revealed that the enzyme activity is controlled by the incorporation of vanadate ions, less than 1.2 mol enzyme-1, in the active site of the enzyme.
IT Major Concepts
Biochemistry and Molecular Biophysics; Climatology (Environmental Sciences); Enzymology (Biochemistry and Molecular Biophysics); Metabolism
IT Chemicals & Biochemicals
BROMOPEROXIDASE; VANADATE; VANADIUM; IRON
IT Miscellaneous Descriptors
ENZYME ACTIVITY; IRON; **METAL ENZYME**; SEASONAL CHANGE; STRUCTURAL **ALTERATIONS**; VANADIUM; VOLATILE HALOGENATED COMPOUND PRODUCTION
ORGN Classifier

Rhodophyta 14700
Super Taxa
Algae; Plantae
Organism Name
Corallina pilulifera
Taxa Notes
Algae, Microorganisms, Nonvascular Plants, Plants
RN 69279-19-2 (BROMOPEROXIDASE)
37353-31-4 (VANADATE)
7440-62-2 (VANADIUM)
7439-89-6 (IRON)

L84 ANSWER 39 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1995:159566 BIOSIS
DOCUMENT NUMBER: PREV199598173866
TITLE: P53 Quantitative immunocytochemical analysis in breast carcinomas.
AUTHOR(S): Charpin, Colette [Reprint author]; Devictor, Benedicte; Andrac, Lucile; Amabile, Joelle; Bergeret, Denise; Lavaut, Marie-Noelle; Allasia, Claude; Piana, Lucien
CORPORATE SOURCE: Laboratoire d'Anatomie Pathologique, Faculte de Medecine Timone, 27 Blvd Jean Moulin, 13385 Marseielle Cedex V, France
SOURCE: Human Pathology, (1995) Vol. 26, No. 2, pp. 159-166. CODEN: HPCQA4. ISSN: 0046-8177.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 11 Apr 1995
Last Updated on STN: 12 Apr 1995

AB A series of 200 breast carcinomas was investigated on frozen sections using PAb 1801 p53 monoclonal antibody and streptavidin biotin **peroxidase** complex. Densitometric analysis of the immunoprecipitates was assessed by processing digitized microscopic images. p53 was observed in the nucleus of 48% of the tumors. Some tumors (14 of 91) tested in parallel on paraffin sections were negative, although positive on frozen sections. Image analysis showed that the surfaces positive with anti-p53 and the staining intensity were decreased (P lt .01) on paraffin sections. The p53 tumor expression was independent of patient age, tumor size, axillary lymph node status, **HER-2/neu** and cathepsin D expression, and nuclear morphometric parameters. However, p53 correlated with high histological grade (P lt .01), lack of estrogen receptor (ER) (P = .0015) and progesterone (PR) (P = .0065) antigenic sites, pS2 detection (P = .03), high Ki-67 immunoreactivity (P = .018), large **silver**-stained nucleolar organizer region (AgNOR) nuclear surface ratio (P lt .02), and degree of hyperploidy (P lt .03), and was more often observed in the comedocarcinomas. The results suggest that p53 expression in breast carcinomas is not a totally independent prognostic indicator and that the clinical relevance and prognostic significance of p53 expression in breast carcinomas can be reliably assessed provided that the procedures are standardized, particularly with regard to the use of frozen sections and image analysis processing of the immunodetection.

IT Major Concepts
Cell Biology; Endocrine System (Chemical Coordination and Homeostasis); Genetics; Oncology (Human Medicine, Medical Sciences); Pathology
IT Chemicals & Biochemicals
PROGESTERONE
IT Miscellaneous Descriptors
ANALYTICAL METHOD; DIAGNOSTIC METHOD; ESTROGEN; PROGESTERONE;

SINGLE-STRAND CONFORMATION POLYMORPHISM
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
RN 57-83-0 (PROGESTERONE)

L84 ANSWER 40 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1994:183665 BIOSIS
DOCUMENT NUMBER: PREV199497196665
TITLE: Characterization of two cold-sensitive mutants of the beta-galactosidase from Lactobacillus delbrueckii subsp. bulgaricus.
AUTHOR(S): Adams, Robin M.; Yoast, Sienna; Mainzer, Stanley E.; Moon, Keith; Palombella, Anthony L.; Estell, David A.; Power, Scott D.; Schmidt, Brian F. [Reprint author]
CORPORATE SOURCE: Khepri Pharmaceuticals Inc., 260 Littlefield Ave., South San Francisco, CA 94080, USA
SOURCE: Journal of Biological Chemistry, (1994) Vol. 269, No. 8, pp. 5666-5672.
CODEN: JBCHA3. ISSN: 0021-9258.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Apr 1994
Last Updated on STN: 18 Nov 1994
AB Methoxylamine mutagenesis of the beta-galactosidase gene from Lactobacillus delbruckii subsp. bulgaricus was used to generate cold-sensitive variants. Two variants, P429S and L317F, were characterized kinetically in order to determine the enzymatic consequences of these mutations. The kinetic parameters K-m and V-max on the synthetic substrate o-nitrophenyl-beta-D-galactopyranoside have been determined over a temperature range of 11-45 degree C. Only the V-max of the two variants was significantly different than the wild-type enzyme over the temperature range studied. The V-max of the L317F variant is reduced proportionately at all temperatures compared to the wild-type enzyme while the value of V-max for the P429S mutant deviates from wild-type only at lower temperatures (in 2 mM Mg-2+). This temperature-dependent effect on the V-max of P429S can be suppressed by increasing the Mg-2+ concentration. The results suggest that the binding of this essential metal ion is altered in the P429S variant such that its dissociation is increased by lowering the temperature.
IT Major Concepts
Biochemistry and Molecular Biophysics; Enzymology (Biochemistry and Molecular Biophysics); Genetics; Physiology
IT Chemicals & Biochemicals
BETA-GALACTOSIDASE; METHOXYLAMINE; O-NITROPHENYL-BETA-D-GALACTOPYRANOSIDE
IT Miscellaneous Descriptors
ENZYME KINETICS; ESSENTIAL **METAL** ION BINDING **ALTERATION**; MAGNESIUM ION BINDING; METHOXYLAMINE; MUTAGEN; O-NITROPHENYL-BETA-D-GALACTOPYRANOSIDE; SYNTHETIC SUBSTRATE
ORGN Classifier
Regular Nonsporing Gram-Positive Rods 07830
Super Taxa
Eubacteria; Bacteria; Microorganisms

Organism Name
regular nonsporing gram-positive rods
Lactobacillus delbrueckii ssp. bulgaricus
Taxa Notes
Bacteria, Eubacteria, Microorganisms
RN 9031-11-2 (BETA-GALACTOSIDASE)
67-62-9 (METHOXYLAMINE)
369-07-3 (O-NITROPHENYL-BETA-D-GALACTOPYRANOSIDE)

L85 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:216696 CAPLUS
DOCUMENT NUMBER: 139:113651
TITLE: "Plugging into **Enzymes**": Nanowiring of Redox **Enzymes** by a Gold Nanoparticle
AUTHOR(S): Xiao, Yi; Patolsky, Fernando; Katz, Eugenii; **Hainfeld, James F.**; Willner, Itamar
CORPORATE SOURCE: Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem, 91904, Israel
SOURCE: Science (Washington, DC, United States) (2003), 299(5614), 1877-1881
CODEN: SCIEAS; ISSN: 0036-8075
PUBLISHER: American Association for the Advancement of Science
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:535294 CAPLUS
DOCUMENT NUMBER: 143:168994
TITLE: **Enzymatic** control of **metal deposition** as key step for a low-background electrical detection for DNA chips
AUTHOR(S): Moeller, Robert; Powell, Richard D.; **Hainfeld, James F.**; Fritzsche, Wolfgang
CORPORATE SOURCE: Institute for Physical High Technology, Jena, 07702, Germany
SOURCE: Nano Letters (2005), 5(7), 1475-1482
CODEN: NALEFD; ISSN: 1530-6984
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:125538 CAPLUS
DOCUMENT NUMBER: 142:274639
TITLE: Gold- and silver-facilitated metallographic in situ hybridization procedures for detection of HER2 gene amplification
AUTHOR(S): Tubbs, Raymond R.; Pettay, James; Skacel, Marek; Downs-Kelly, Erinn; Powell, Richard D.; Hicks, David G.; **Hainfeld, James F.**
CORPORATE SOURCE: Department of Clinical Pathology and the Cleveland Clinic, Lerner College of Medicine, The Cleveland Clinic Foundation, Cleveland, OH, USA

SOURCE: Molecular Morphology in Human Tissues (2005), 101-106. Editor(s): Hacker, Gerhard W.; Tubbs, Raymond R. CRC Press LLC: Boca Raton, Fla. CODEN: 69GLWK; ISBN: 0-8493-1702-9
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:125537 CAPLUS
DOCUMENT NUMBER: 142:332353
TITLE: Gold cluster labels and related technologies in molecular morphology
AUTHOR(S): **Hainfeld, James F.**; Powell, Richard D.
CORPORATE SOURCE: Department of Biology, Brookhaven National Laboratory, Upton, NY, USA
SOURCE: Molecular Morphology in Human Tissues (2005), 81-100. Editor(s): Hacker, Gerhard W.; Tubbs, Raymond R. CRC Press LLC: Boca Raton, Fla. CODEN: 69GLWK; ISBN: 0-8493-1702-9
DOCUMENT TYPE: Conference
LANGUAGE: English
REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1119356 CAPLUS
DOCUMENT NUMBER: 142:476560
TITLE: Novel bright field molecular morphology methods for detection of HER2 gene amplification
AUTHOR(S): Tubbs, Raymond; Pettay, James; Hicks, David; Skacel, Marek; Powell, Richard; Grogan, Tom; **Hainfeld, James**
CORPORATE SOURCE: Departments of Anatomic and Clinical Pathology, The Cleveland Clinic Foundation and The Cleveland Clinic Lerner College of Medicine, Cleveland, OH, 44195, USA
SOURCE: Journal of Molecular Histology (2004), 35(6), 589-594 CODEN: JMHOAO; ISSN: 1567-2379
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:420085 CAPLUS
DOCUMENT NUMBER: 138:118072
TITLE: Supersensitive in situ hybridization by tyramide signal amplification and nanogold silver staining: The contribution of autometallography and catalyzed reporter deposition to the rejuvenation of in situ hybridization
AUTHOR(S): Tubbs, Raymond R.; Pettay, James; Grogan, Thomas; Cheung, Annie L. M.; Powell, Richard D.; **Hainfeld, James**; Hauser-Kronberger, Cornelia; Hacker, Gerhard W.
CORPORATE SOURCE: Department of Clinical Pathology, The Cleveland Clinic Foundation, Cleveland, OH, USA
SOURCE: Gold and Silver Staining (2002), 127-144. Editor(s):

Hacker, Gerhard W.; Gu, Jiang. CRC Press LLC: Boca Raton, Fla.
CODEN: 69CQTC; ISBN: 0-8493-1392-9
DOCUMENT TYPE: Conference
LANGUAGE: English
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:658520 CAPLUS
DOCUMENT NUMBER: 133:251273
TITLE: Metal-lipid molecules
INVENTOR(S): **Hainfeld, James F.**; Furuya, Frederic R.; Powell, Richard D.; Joshi, Vishwas N.; Gutierrez, Edmund
PATENT ASSIGNEE(S): Nanoprobes, Inc., USA
SOURCE: U.S., 20 pp., Cont.-in-part of U.S. 5,728,590.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6121425	A	20000919	US 1998-39601	19980316
US 5521289	A	19960528	US 1994-282929	19940729
US 5728590	A	19980317	US 1996-652007	19960523
US 6369206	B1	20020409	US 2000-619343	20000719
US 6818199	B1	20041116	US 2002-93770	20020308
US 2005130207	A1	20050616	US 2004-988781	20041115

PRIORITY APPLN. INFO.:
US 1994-282929 A2 19940729
US 1996-652007 A2 19960523
US 1998-39601 A1 19980316
US 2000-619343 A2 20000719
US 2002-93770 A1 20020308
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:668511 CAPLUS
DOCUMENT NUMBER: 132:262328
TITLE: Gold-ATP
AUTHOR(S): **Hainfeld, James F.**; Liu, Wenqiu; Barcena, Montserrat
CORPORATE SOURCE: Biology Department, Brookhaven National Laboratory, Upton, NY, 11973, USA
SOURCE: Journal of Structural Biology (1999), 127(2), 120-134
CODEN: JSBIEM; ISSN: 1047-8477
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:200240 CAPLUS
DOCUMENT NUMBER: 102:200240
TITLE: Escherichia coli pyruvate dehydrogenase complex: particle masses of the complex and component

enzymes measured by scanning transmission electron microscopy
AUTHOR(S): CaJacob, Claire A.; Frey, Perry A.; **Hainfeld, James F.**; Wall, Joseph S.; Yang, Heechung
CORPORATE SOURCE: Coll. Agric. Life Sci., Univ. Wisconsin, Madison, WI, 53705, USA
SOURCE: Biochemistry (1985), 24(10), 2425-31
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English

L85 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:181471 CAPLUS
DOCUMENT NUMBER: 102:181471
TITLE: Evidence for two spatially distinct domains on each subunit of methylenetetrahydrofolate reductase
AUTHOR(S): Matthews, Rowena G.; Vanoni, Maria A.; Khani, Shahrokh; **Hainfeld, James F.**; Wall, Joseph
CORPORATE SOURCE: Dep. Biol. Chem., Univ. Michigan, Ann Arbor, MI, 48109, USA
SOURCE: Flavins Flavoproteins, Proc. Int. Symp., 8th (1984), 217-20. Editor(s): Bray, Robert C.; Engel, Paul C.; Mayhew, Stephen G. de Gruyter: Berlin, Fed. Rep. Ger.
CODEN: 53HMAL
DOCUMENT TYPE: Conference
LANGUAGE: English

L85 ANSWER 11 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:521812 BIOSIS
DOCUMENT NUMBER: PREV200510292858
TITLE: Analytical validation and interobserver reproducibility of EnzMet GenePro - A second-generation bright-field metallography assay for concomitant detection of HER2 gene status and protein expression in invasive carcinoma of the breast.
AUTHOR(S): Downs-Kelly, Erinn; Pettay, James; Hicks, David; Skacel, Marek; Yoder, Brian; Rybicki, Lisa; Myles, Jonathan; Sreenan, Joseph; Roche, Patrick; Powell, Richard; **Hainfeld, James**; Grogan, Thomas; Tubbs, Raymond [Reprint Author]
CORPORATE SOURCE: 9500 Euclid Ave,L11, Cleveland, OH 44195 USA
TubbsR@ccf.org
SOURCE: American Journal of Surgical Pathology, (NOV 2005) Vol. 29, No. 11, pp. 1505-1511.
ISSN: 0147-5185.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Nov 2005
Last Updated on STN: 23 Nov 2005

L85 ANSWER 12 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:415036 BIOSIS
DOCUMENT NUMBER: PREV200510210247
TITLE: **Enzyme** metallography (EnzMet) - A robust detection system for high resolution ultrasensitive immunohistochemistry (IHC).
AUTHOR(S): Tubbs, R. R. [Reprint Author]; Pettay, J.; Roche, P. C.; Powell, W.; Powell, R. D.; Grogan, T.; **Hainfeld, J.**

F.
CORPORATE SOURCE: Cleveland Clin Fdn, Cleveland, OH 44195 USA
SOURCE: Modern Pathology, (JAN 2005) Vol. 18, No. Suppl. 1, pp. 335A.
Meeting Info.: 94th Annual Meeting of the United-States-and-Canadian-Academy-of-Pathology. San Antonio, TX, USA. February 26 -March 04, 2005. US Canadian Acad Pathol.
ISSN: 0893-3952.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Oct 2005
Last Updated on STN: 19 Oct 2005

L85 ANSWER 13 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:426317 BIOSIS
DOCUMENT NUMBER: PREV200200426317
TITLE: Interobserver interpretative reproducibility of GOLDFISH, a first generation gold-facilitated autometallographic bright field in situ hybridization assay for **HER-2/neu** amplification in invasive mammary carcinoma.
AUTHOR(S): Tubbs, Raymond [Reprint author]; Skacel, Marek; Pettay, James; Powell, Richard; Myles, Jonathan; Hicks, David; Sreenan, Joseph; Roche, Patrick; Stoler, Mark H.; **Hainfeld, James**
CORPORATE SOURCE: Department of Clinical Pathology, 9500 Euclid Avenue, L-11, Cleveland, OH, 44195-5131, USA
tubbsr@ccf.org
SOURCE: American Journal of Surgical Pathology, (July, 2002) Vol. 26, No. 7, pp. 908-913. print.
ISSN: 0147-5185.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Aug 2002
Last Updated on STN: 7 Aug 2002

L85 ANSWER 14 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:318388 BIOSIS
DOCUMENT NUMBER: PREV200200318388
TITLE: Interobserver reproducibility of a first generation autometallographic bright field assay for **Her-2/neu** amplification (GOLDFISH).
AUTHOR(S): Tubbs, R. R. [Reprint author]; Skacel, M. [Reprint author]; Pettay, J. D. [Reprint author]; Powell, R. D.; Myles, J. L. [Reprint author]; Sreenan, J. J.; Hicks, D. G. [Reprint author]; Stoler, M. H.; Roche, P. C.; Jenkins, R. B.; **Hainfeld, J. F.**
CORPORATE SOURCE: Cleveland Clinic, Cleveland, OH, USA
SOURCE: Laboratory Investigation, (January, 2002) Vol. 82, No. 1, pp. 54A. print.
Meeting Info.: 2002 Annual Meeting of the United States and Canadian Academy of Pathology. Chicago, IL, USA. February 23-March 01, 2002.
CODEN: LAINAW. ISSN: 0023-6837.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English
ENTRY DATE: Entered STN: 5 Jun 2002
Last Updated on STN: 5 Jun 2002

L85 ANSWER 15 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:318354 BIOSIS
DOCUMENT NUMBER: PREV200200318354
TITLE: Validation of GOLDFISH (Gold Facilitated Autometallographic In Situ Hybridization) for assessment of **Her-2/neu** oncogene amplification by conventional microscopy: A detailed investigation of discrepancies with direct fluorescence in situ hybridization (FISH).
AUTHOR(S): Pettay, J. D. [Reprint author]; Skacel, M. [Reprint author]; Powell, R. D.; Stoler, M. H.; Roche, P. C.; **Hainfeld, J. F.**; Tubbs, R. R. [Reprint author]
CORPORATE SOURCE: Cleveland Clinic, Cleveland, OH, USA
SOURCE: Laboratory Investigation, (January, 2002) Vol. 82, No. 1, pp. 46A. print.
Meeting Info.: 2002 Annual Meeting of the United States and Canadian Academy of Pathology. Chicago, IL, USA. February 23-March 01, 2002.
CODEN: LAINAW. ISSN: 0023-6837.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Jun 2002
Last Updated on STN: 5 Jun 2002

L85 ANSWER 16 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:221042 BIOSIS
DOCUMENT NUMBER: PREV200000221042
TITLE: Introduction of a novel HRP substrate-Nanogold probe for signal amplification in immunocytochemistry.
AUTHOR(S): Mayer, Gaetan; Leone, Robert D.; **Hainfeld, James F.**; Bendayan, Moise [Reprint author]
CORPORATE SOURCE: Dept. of Pathology and Cell Biology, Universite de Montreal, Succ. Centre Ville, Montreal, Quebec, H3C 317, Canada
SOURCE: Journal of Histochemistry and Cytochemistry, (April, 2000) Vol. 48, No. 4, pp. 461-469. print.
CODEN: JHCYAS. ISSN: 0022-1554.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 31 May 2000
Last Updated on STN: 5 Jan 2002

L85 ANSWER 17 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1997:251852 BIOSIS
DOCUMENT NUMBER: PREV199799551055
TITLE: Sensitive in situ hybridization with catalyzed reporter deposition, streptavidin-Nanogold, and **silver** acetate autometallography: Detection of single-copy human papillomavirus.
AUTHOR(S): Zehbe, Ingeborg [Reprint author]; Hacker, Gerhard W.; Su, Huici; Hauser-Kronberger, Cornelia; **Hainfeld, James F.**; Tubbs, Raymond

CORPORATE SOURCE: Deutsches Krebsforschungszentrum, Angewandt Tumorvirol., Virus-Wirtszell-Wechselwirkungen, Im Neuenheimer Feld 242, D-69120 Heidelberg, Germany
SOURCE: American Journal of Pathology, (1997) Vol. 150, No. 5, pp. 1553-1561.
CODEN: AJPAA4. ISSN: 0002-9440.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jun 1997
Last Updated on STN: 13 Jun 1997

L85 ANSWER 18 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1994:448312 BIOSIS
DOCUMENT NUMBER: PREV199497461312
TITLE: Mapping the lipoyl groups of the pyruvate dehydrogenase complex by use of **gold** cluster labels and scanning transmission electron microscopy.
AUTHOR(S): Yang, Yuh-Shyong; Datta, Asit; **Hainfeld, James F.** ; Furuya, Frederic R.; Wall, Joseph S.; Frey, Perry A. [Reprint author]
CORPORATE SOURCE: Inst. for Enzyme Res., Graduate Sch., Dep. Biochemistry, College of Agricultural and Life Sciences, Univ. Wisconsin-Madison, Madison, WIS 53705, USA
SOURCE: Biochemistry, (1994) Vol. 33, No. 32, pp. 9428-9437.
CODEN: BICHAW. ISSN: 0006-2960.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Oct 1994
Last Updated on STN: 25 Oct 1994

L85 ANSWER 19 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1993:321665 BIOSIS
DOCUMENT NUMBER: PREV199396030015
TITLE: A polypeptide bound by the chaperonin groEL is localized within a central cavity.
AUTHOR(S): Braig, Kerstin [Reprint author]; Simon, Martha; Furuya, Fred; **Hainfeld, James F.**; Horwich, Arthur L. [Reprint author]
CORPORATE SOURCE: Howard Hughes Med. Inst., Dep. Genetics, Yale Univ. Sch. Med., 333 Cedar St., New Haven, CT 06510, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1993) Vol. 90, No. 9, pp. 3978-3982.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Jul 1993
Last Updated on STN: 13 Jul 1993

L85 ANSWER 20 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1992:225044 BIOSIS
DOCUMENT NUMBER: PREV199242106544; BR42:106544
TITLE: ELECTRON MICROSCOPY OF UNSTAINED **GOLD**-CLUSTER LABELED PYRUVATE AND 2 OXOGLUTARATE DEHYDROGENASE COMPLEXES PDC AND OGDC.
AUTHOR(S): WAGENKNECHT T [Reprint author]; GRASSUCCI R; BERKOWITZ J; CARBONE K; FURUYA F; **HAINFELD J**

CORPORATE SOURCE: WADSWORTH CENT LAB RES, NY STATE DEP HEALTH, ALBANY, NY 12201-0509, USA
SOURCE: Biophysical Journal, (1992) Vol. 61, No. 2 PART 2, pp. A469.
Meeting Info.: JOINT ANNUAL MEETING OF THE BIOPHYSICAL SOCIETY AND THE AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY, HOUSTON, TEXAS, USA, FEBRUARY 9-13, 1992. BIOPHYS J.
CODEN: BIOJAU. ISSN: 0006-3495.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 5 May 1992
Last Updated on STN: 6 May 1992

L85 ANSWER 21 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1992:177621 BIOSIS
DOCUMENT NUMBER: PREV199242082621; BR42:82621
TITLE: ELECTRON MICROSCOPY OF UNSTAINED **GOLD**-CLUSTER LABELED PYRUVATE AND 2 OXOGLUTARATE DEHYDROGENASE COMPLEXES PDC AND OGDC.
AUTHOR(S): WAGENKNECHT T [Reprint author]; GRASSUCCI R; BERKOWITZ J; CARBONE K; FURUYA F; **HAINFELD J**
CORPORATE SOURCE: WADSWORTH CENT LAB RES, NEW YORK STATE DEP HEALTH, ALBANY, NY 12201, USA
SOURCE: FASEB Journal, (1992) Vol. 6, No. 1, pp. A469.
Meeting Info.: JOINT MEETING OF THE AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY/BIOPHYSICAL SOCIETY, HOUSTON, TEXAS, USA, FEBRUARY 9-13, 1992. FASEB (FED AM SOC EXP BIOL) J.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 2 Apr 1992
Last Updated on STN: 3 Apr 1992

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